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UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

NY MACHINERY INC. AND KLEANERS LLC, *Plaintiff(s)* v. **THE KOREAN CLEANERS MONTHLY, JOHN CHUNG A/K/A SEUNG CHAE CHUNG, AND JOHN DOES 1-10,** *Defendant(s).*	**DECLARATION OF JOHN CHUNG**

1. I, John Chung, declares pursuant to 28 U.S.C. § 1756:
2. I am the owner and publisher of The KOREAN CLEANERS MONTHLY ("TKCM"), P O Box 1321, Englewood Cliffs, New Jersey 07632, a Defendant in the above-captioned matter. Accordingly, I have personal knowledge of the facts contained in this declaration.
3. The below listed paragraphs are an accurate summary of the events encompassing the allegations of the Plaintiff's Complaint in this matter.
4. TKCM is a monthly periodical regarding the Korean Dry-Cleaning industry and has been an authoritative source of this information since 1993. I am the editor of the publication. TKCM does not do any testing or scientific analysis itself but relies on third party testing

and independent research for its articles and reviews. It does not favor or advocate one manufacturer over another and is not itself a manufacturer or seller of dry-cleaning equipment or cleaning products.

5. New York Machinery, Inc. ("NYM") is an importer and distributor of dry-cleaning equipment and chemicals.

6. Mr. Lee and NYM used to sell Union® dry cleaning machines from Italy and Union had both distillation machines and filters-only machines.

   a. Distillation machine has a vacuum still to distill dirty solvent to make it clean;

   b. Filters-only machine relies on cartridge filters to keep the solvent clean.

7. In 2011, Mr. Lee and NYM began importing and selling Unisec dry cleaning machine, a filters-only machine, also known as a no-cooking machine.

8. After Union severed its business relationship with NYM, Lee and NYM had no distillation machines to offer to its customers.

9. Compared to a distillation machine, Unisec was cheaper by $10,000 ~ $15,000.

10. But the cost of a filter change is very high. A 50 lbs. Unisec model uses 6 split large format cartridge filters:

    a. Cost of new filters: $120 x 6 = $720

    b. Cost of disposing old filters: $100 x 6 = $600

    c. Cost of replenishing 10 gal. of solvent: $12 x 10 = $120

    d. Total cost of a filter change: $1440

    e. Industry norm for a filter change is 3 months assuming, running 3 loads (40lbs. of clothes in 50lbs. machine) a day, 5 days a week.

    f. Cost of doing 4 filter changes per year: $5,760

g. Unisec's price advantage disappears in 2 years, and you have to keep paying for filter changes as long as you are using this machine.

11. This prohibitive cost of filter changes made it very difficult for Mr. Lee and NYM to sell Unisec machines.

12. Mr. Lee and NYM started advertising Unisec machines in September 2011.

13. Mr. Lee and NYM started claiming his EM filters can be used 1~2 years or longer. From June 2012 to February 2014, NYM ran EM filter ads every month, claiming incredibly long life **(Exhibits H-O).**

14. Mr. Lee started claiming his EM soap not only cleans clothes, it eats (decomposes) contaminant from dirty clothes.

15. Mr. Lee and NYM ran separate "advertorial" ads (ads designed to resemble an article) campaign that praised its EM technology. From June 2012 to September 2016 NYM ran a total of 72 advertorial ads over 52 months. A representative ad is attached hereto as **Exhibit A.**

16. NYM also ran separate product ads for NYM, EM and Unisec on top of these ad campaigns.

17. These extensive ad campaigns had the effect of disseminating false information about its EM products.

18. Mr. Lee and NYM made these false claims to deceive customers and secure their business.

19. Mr. Lee and NYM quickly became the largest Korean equipment company in America thanks to this "EM" marketing.

20. In September 2016, Robert Lee, President of NYM, called me to arrange a meeting. Mr. Lee demanded a lower price for his advertising in TKCM. During the meeting, he insulted me in front of his office staff with the threat that he wouldn't pay his invoices unless I complied with his request.

21. In October 2016, rather than succumbing to Mr. Lee's threat, I decided to sever the business relationship with NYM and notified Mr. Lee that TKCM would not be running NYM's ads any longer starting with the November 2016 issue. This decision was mine and not that of Mr. Lee.

22. In "NYM Speaks, " an ad run by Mr. Lee in his Korean Kleaners magazine, Lee wrote "Seungchae Chung unable to control his anger, and throw one-sided notice to cut off all advertisement (Line 71,72 **Exhibit B)**. This contradicts Mr. Lee's claim in this lawsuit.

23. Also in October 2016, since NYM's business was heavily dependent upon advertising in TKCM, NYM began preparations to launch its own magazine, "Kleaners." NYM set up Mr. Joo Sang Hwang, an employee of NYM, as the publisher and had him contact advertisers as if Kleaners was Mr. Hwang's magazine. Unlike TKCM, Kleaners was a market mailer published by NYM. In January 2017 Kleaners printed its first issue.

24. In February 2021, EM Soap's US Patent (#8,110,009 B2) was assigned to Mr. Lee. Neither Mr. Lee nor anyone at NYM had authored the patent.

25. Lee represented in Kleaners that, in 2012 he *received* a patent (#8,110,009 B2) for developing a bacteria variant for the first time in the world which could live in a petroleum solvent. NYM's dry cleaning machines require a petroleum solvent. In reality, the patent had nothing to do with a bacteria variant. It was only for EM soap. **(Exhibit C, S) .**

26. This gross misrepresentation showed two things: 1/ Mr. Lee already knew EM bacteria could not live in a petroleum solvent; 2/ Mr. Lee has an intention to deceive his customers.

27. The patent disclosed the content of EM Soap: dry cleaning soap 100 parts; EM 3-8 parts; distilled water 3-8 parts. That means that the actual EM content of EM Soap is only 0.028~0.069. Since EM Soap is used at 1.0% concentration in solvent, actual EM content is basically nothing in actual use. NYM refused to make any comment on KCM's inquiry concerning the aforementioned soap content and its representations to its customers. The discovery was reported in the January 2017 issue of TKCM. TKCM reached out to NYM.

28. In January 2017, TKCM acquired a copy of a microbial analysis report done by Avomeen Analytical Services **(Exhibit D)**. According to this certificate of analysis, no meaningful colonies of EM bacteria were found in EM Soap. Again, NYM refused to make any comment on TKCM's inquiry. The discovery was reported in the February 2017 issue of TKCM.

29. "Case Study: Biodegradation of the Anto Shore 7 Years after the Russian Tanker Oil Spill in the Sea of Japan" authored by Takahiro Kanno, published on 12/16/2004 **(Exhibit E)** concluded that "Compared to the physical removal records, the bioremediation using EM1 was more effective." This meant that EM decomposes petroleum. If that is so, the presence of EM ® in EM soap would destroy the petroleum dry cleaning solvent.

30. Max Haggblom, distinguished Professor and Chair of the Department of Biochemistry and Microbiology School of Environmental and Biological Sciences at Rutgers

University wrote to me advising that no bacteria can live in petroleum without liquid water. Liquid water is required by all microorganisms. Defendants have produced this email. The dry-cleaning machines in question require a petroleum solvent. Therefore, NYM's claims are false.

31. To that time, NYM had become the most successful seller of dry-cleaning equipment and chemicals in the United States falsely claiming superior cleaning ability of EM soap in removing not only soil and stains from dirty clothes, but that it actually eats (decomposes) them to keep the solvent clean. Further claims were that EM soap would remove static electricity, wrinkles, odor and lint. It also claimed that EM soap would protect clothes from mold growth and body odor.

32. NYM also falsely claimed EM soap would protect the metals and gaskets found in the interior of a dry-cleaning machine and its strong antioxidant effect would prolong the machine's life and extend the EM filter's useful life because it decomposed sludges formed on them.

33. NYM falsely claimed on its Unisec dry-cleaning machine's website that EM soap is not a synthetic soap using surfactants and that synthetic soap is the main culprit for harm to human health and environment. NYM also claimed that EM soap is a non-polluting pure soap without any hazardous chemicals. However, according to its own Material Safety Data Sheet, it contains two OSHA hazardous components, linear alkyl benzene sulfonate CAS No. 68081, a commonly used surfactant. It also contains petroleum hydrocarbon solvent CAS No. 8030-30-6, commonly called "naphtha" or "petroleum ether." Both are classified as hazardous by OSHA (**Exhibit F**).

34. The package design of EM soap that NYM sells in the United States is different from that being sold in Japan. The US package lacks the EM logo of the product (Exhibit C to Declaration of Robert Lee). The EM logo is licensed by EMRO in Japan. KCM emailed NYM to explain the discrepancy, but NYM did not respond or comment. There is no such product as an EM filter in Japan as NYM claims. NYM sells its EM filters at a premium price compared to other comparable filters on the market.

35. As to EM filters, NYM claimed that the EM in EM filters performed flawlessly even after two years and seven months, returning crystal clear solvent **(Exhibit G).** In my 30 years' experience, I am familiar that the industry norm for a split format cartridge filter is about three months assuming a 40-pound load three times a day, five days a week. In other words, NYM was claiming a useful life more than 10 times the industry norm. (See below). See **Exhibits H-O** showing ads from NYM in TKCM attesting to filter changes after 32 months (June 2012), 27 months, (August 2012), 20 months (September 2012), 22 months (November 2012), 19 months (March 2013), 26 months (May 2013), 24 months (August 2013), and 24 months (January 2014). This is contradicted by paragraph 18 of the declaration of Robert Lee submitted by Plaintiffs where he says "I am not aware of ever making such a recommendation" that EM filters could be successfully utilized for more than one or two years.

36. KCM referenced technical bulletins from Drycleaning and Laundry institute (DLI), National Cleaners Association (NCA), Kleen-Rite and R. R. Streets, a leading cartridge manufacturer in America. There was a consensus among technical experts that it is impossible to use a cartridge filter for 1 –2 years and maintain good solvent quality. According to the user manual from R.R Streets (**Exhibit P**) recommended use is 1,250

lbs. of clothes cleaned per split large format cartridge like NYM's EM filter.

Accordingly:

A. If you process 3 loads (40 lbs. of clothes in 50 lb. dry cleaning machine) per day, it's 120 lbs. per day. If you run your dry-cleaning machine 5 days a week, it's 600 lbs. per week.

B. A 50 lb. Unisec machine uses a total of 6 split large format cartridge filters (4 in dark-load circuit and another 2 in light-load circuit), so its useful life is 7,500 lbs.(1,250x6) combined. In other words, 6 split large format filters will be used up in 12.5 weeks (7,500 divided by 600 lbs/week), or about 3 months. Even if it is doubled, it's only 6 months. If quadrupled, it's still only 12 months.

C. Accordingly, NYM's claim of 1-2 years of useful life is exaggerated and unrealistic.

37. In February 2017, I examined the website of Two-M Kasei in Japan. It is the company which NYM claims supplied its EM Filters for use in its dry-cleaning machines. But the website does not mention EM Filters in its product listing.

38. At that time, on behalf of TKCM, I also googled "EM Filter" in English as well as Japanese but only hits were Electro-Magnetic Filters, not Effective Microorganism Filters, the type of filters allegedly used in the dry-cleaning machines imported by NYM. Again, NYM refused to make any comment on TKCM's inquiry. The discovery was reported in the March 2017 issue of TKCM.

39. In March 2017, TKCM received copies of emails from EMRO, the EM Research Organization which licenses all EM products, and also from Zendora, the largest and oldest Japanese paper for the cleaning industry. EMRO, through Takasi Shimoji confirmed there is no dry-cleaning cartridge filter containing EM. Robert Lee of NYM confirmed this in his deposition taken in the above-captioned case. (See excerpt referenced in Defendants' Response to Plaintiffs' Undisputed Facts.) Zendora, through its CEO, Seki Makoto, advised me that it had not heard of such a product. Again, NYM

refused to make any comment on TKCM's inquiry. The discovery was reported in the April 2017 issue of KCM. (Exhibit Q & R)

40. Two-M-Kasei, NYM's alleged supplier of EM filters does not show EM filters on its website product list. At the time, I asked NYM to produce any articles or advertisements of EM filters in any Japanese media. NYM did not respond or comment.

41. In an article Robert Lee wrote in his own Kleaners magazine, he claimed that in 2012 he received a patent (US8,110,009 B2) for developing a bacteria variant for the first time in the United States and the world that can live in solvent, purportedly another legal recognition of EM technology **(Exhibit S)**. However, the patent belongs to EM Soap and was merely assigned to Mr. Lee on February 7, 2012. Per the Avomeen report and Dr. Max Haggblom, *infra*, EM® bacteria cannot live in petroleum solvent. NYM was given the opportunity to speak about this issue before publication and gave no response.

42. In April 2017 Mr. Lee made a surprise visit to Mr. Sammy Ahn at his office in southern California. Mr. Ahn is the allied trader in the Korean Dry-Cleaning Industry who assisted me in obtaining information from EMRO and Zendora. He traveled there with two of his distributors and interrogated Mr. Ahn as to why he assisted me in obtaining the aforementioned information. Mr. Ahn, in a later email to me, described the experience as an "unbearable insult." **(Exhibit T)**.

43. In, April 2017, TKCM sent an email inquiry to Mr. Mizukami, president of Two-M Kasei in Japan. This is the company NYM claims supplied EM Filters. Mr. Mizukami refused to confirm or deny if his company manufactures or sells EM Filters in Japan. Mr. Mizukami told me to contact NYM directly for information. Again, NYM refused to

make any comment to TKCM's inquiry. The discovery was reported in the May 2017 issue of TKCM.

44. In May 2017, after the aforementioned reporting, NYM ran an ad in Kleaners falsely accusing TKCM of extorting money from advertisers, threatening allied traders, and running its business like a mobster. Then NYM asked dry cleaners and allied traders to send in "evidence" of this conduct to destroy TKCM.

45. TKCM also discovered there is no EM logo on either EM Soap or EM Filters sold by NYM. EMRO in Japan licenses the use of EM logos to legitimate EM products. NYM refused to make any comment on KCM's inquiry in this matter. The discovery was reported in the June 2017 issue of KCM.

46. In June 2017, Mr. Sammy Ahn encountered Mr. Lee at an exhibit in Las Vegas. He was so intimidated by Mr. Lee that he actually suffered an acute nervous breakdown. Mr. Ahn shouted and ranted for several minutes accusing me of creating trouble with Mr. Lee because of the information contained herein. After the incident, Mr. Ahn ceased all communications with me for several months.

47. In July 2017, TKCM did a recorded interview with Dan Eisen, an acknowledged expert in the dry-cleaning industry and it was reported in the August 2017 issue. In the recording, he specifically stated "They [NYM] are a phony, John [CHUNG] all right. And I'll tell you and shame on them for trying to cheat the hard-working cleaners..." (Parentheses added). He denied he even had this interview in his sworn affidavit and, in his deposition, He later equivocated in his testimony saying he "may have been pacifying" me. In addition, the words "crooks" and "outright crooks" were used by Mr. Eisen during my interview with him to express his disgust when NYM would not return

his calls. I did not understand this to be used in the context of a crime or criminal conviction and never reported it as such.

48. In August 2017, NYM showed what they claim is a receipt from US Post Office in an ad in Kleaners to claim it has 8,375 subscribers. But the "receipt" has handwritten numbers and listed a P. O. Box as the mailer's address. Upon information, USPS does not issue a receipt with hand-written numbers. In addition, USPS requires mailers to use a street address. Use of a P. O. Box address is forbidden. The discovery was reported in the September 2017 issue of KCM. (Exhibit U)

49. After the Eisen interview was published in August 2017, NYM hired Dan Eisen in October 2017 to work in its booth at an exhibition in NJ. NYM also commissioned Mr. Eisen to do a product review of his dry-cleaning system for which, he estimated in his deposition, he was paid $3,000. NYM also had Mr. Eisen sign an affidavit that denied the content of my interview with him. Per the above, this was completely untrue.

50. At no time were any of the aforementioned publications of TKCM based on conjecture or printed without the aforementioned verification and prior, attempted, consultation with NYM. KCM has never threatened or harassed NYM. It always contacted NYM for verification of its findings or technical information related to NYM's dry cleaning products to which there was no response. See Exhibit K to the Robert Lee Declaration, the email to Mindy Supply noting no response to inquiries to NYM.

51. KCM provided anonymity to Mr. Lee and to NYM in all reports. No real person or company name was used in the articles published by KCM.

I declare under penalty of perjury that the foregoing is true and correct.

Dated: May 9, 2022

By: 
JOHN CHUNG

Exhibit A

The Spanish Group LLC
1 Park Plaza, Suite 600
Irvine, CA 92614
United States of America
https://www.thespanishgroup.org

Certified Translation

Furnished on the **6th** day of **May, 2022**

I, **Hyunji Lee** ( ), hereby certify that I translated the attached document from Korean into English or English into Korean and that this translation is an accurate and faithful translation of the original document. Furthermore, I certify that I am proficient in translating both Korean and English and that I hold the capacity to render and certify the validity of such a translation. This document has not been translated for a family member, friend, or business associate.

I, Salvador G. Ordorica, as a Quality Assurance Agent of The Spanish Group LLC, hereby attest that the aforementioned translator is a proficient Korean-English translator. Accordingly, as an authorized representative of The Spanish Group, I certify that this document has been proofread and that the attached document is a faithful and authentic translation of its original.

Respectfully,

Salvador G. Ordorica
The Spanish Group LLC
(ATA #267262)

CERTIFIED The Spanish Group TRANSLATION

Full page advertisement

"We Have Such a Good Quality Laundry"

Seventy Palms Cleaner Insisted on Using PERC Amazed after UNIVSEC machine installation

PERC users' main reason of not switching to hydrocarbon is because they think it would not give good laundry results. And it is also true that this idea was not wrong. But EM technology provided by New York Machinery has been changing the scene. Seventy Palms Cleaner in Berkeley Heights, New Jersey who had not been switched to hydrocarbon solvent due to unusual "PERC love" is impressed on the laundry quality after they have installed the EM technology optimized UNISEC machine last year.

Ms. Eva, general manager of 70 Palms Cleaner likes the quality of laundry, especially white load laundry better than using PERC.

President Park of 70 palm cleaner is a veteran of 28 years in cleaner business industry and have managed his cleaners with a manager so far, he was more hesitant to switch to hydrocarbon solvent difficult to manage. So, while he had managed to run more than 4 cleaners with 4 dry cleaning machines, he always insisted on using PERC and is using 2 PERC machines in this cleaner. However, following New Jersey government's decision to give free support for the machine switch, he applied and received funds to install the hydrocarbon machine.

President Park said "I, myself is an engineer by education, preferred simple machine design and decided to choose UNISEC machine." and said, "I congratulate CEO Lee Nam Goo of New York Machinery to be able to design such a simple and solid machine."

Ms. Eva, a 7-year veteran general manager said, "I have worked with the PERC machine with ease so far, I did not like the idea of switching the machine suddenly, first.", and admired that "but UNISEC machine is very easy to work with, it really is a machine that you fall in love as you use more"

Ms. Eva said, "I heard hydrocarbon does not give good laundry results, but I found it gives as good quality laundry results as PERC, furthermore I really like the results with very little damage to clothes.", and "I can work without being limited to my working time because there is no need of separate cooking or steam.

Ms. Eva said, "I was amazed for the brightness when I did the first white laundry." and admires that "I have been using the UNISEC machine for almost one year, thanks to EM, the laundry quality is excellent, and I still use the same cartridge filter. I have never seen this kind before, really.

70 Palms Cleaners
(908) 464-0066
New York Machinery
(978) 875-1111 ■

"EM 덕분에 빨래가 너무 잘 되네요"

펄크만 고집하던 70 팜스 클리너 유니섹 머쉰 설치 후 빨래 퀄리티에 감탄

펄크를 사용하는 사람들이 하이드로카본으로 전환하지 않는 주된 이유가 빨래가 잘 안 된다는 생각 때문이다. 그리고 이 생각이 틀리지 않았다는 것도 사실이다. 하지만 뉴욕 머쉬너리가 보급 중인 EM 기술이 이러한 선입견을 바꿔놓고 있다. 뉴저지 버클리 하잇츠에 자리한 70 팜스 클리너는 그동안 날다른 "펄크 사랑"으로 하이드로카본 솔벤트를 선택하지 않았는데 작년에 EM 기술을 최적화시킨 유니섹 머쉰을 장만하고 나서 "빨래가 너무 잘 된다"고 감탄하고 있다.

70 팜스 클리너 총매니저 에바 씨는 펄크를 사용할 때보다 빨래 퀄리티, 특히 화이트 코드 빨래가 향상됐다고 좋아한다.

70 팜 클리너의 박 사장은 세탁업 경력 28년의 베테랑이지만 지금까지 항상 매니저를 두고 세탁소를 운영해 왔기 때문에 솔벤트 관리 등이 까다로운 하이드로카본 솔벤트를 더욱 꺼려했다고 한다. 그래서 지금까지 세탁소를 4개 이상 꾸미면서 드라이클리닝 기계를 4대나 사왔지만 항상 펄크만을 고집했고, 이 클리너에서 펄크 머쉰 2대를 사용하고 있었다. 하지만 뉴저지 주정부가 장비 교체 투상 지원금을 주기로 해 이를 신청해 받으면서 하이드로카본 머쉰을 장만하게 된 것.

박 사장은 "나 자신도 엔지니어링 공부를 해본 사람으로서 간단한 기계 디자인을 선호해 유니섹 머쉰을 선택하게 됐다"며 "뉴욕 머쉬너리 이남구 사장이 이렇게 심플하고 전고한 디자인을 만든데 찬사를 보낸다"고 말한다.

이 업소 7년 베테랑 총매니저 에바 씨는 "지금까지 펄크 기계로 편하게 일해 왔는데 갑자기 기계를 바꾼다고 해 처음엔 좀 싫었다"며 "그런데 유니섹 기계는 일하기가 너무 편하다. 정말 써볼수록 반하는 기계"라고 감탄한다.

에바 씨는 "하이드로카본은 빨래가 잘 안 된다고 들었는데 EM 기술을 최적화시킨 기계라서 그런지 빨래가 펄크 못지않게 잘 되고 루엣보다 옷 손상이 거의 없어 너무 좋다"며 "따로 작업을 하지 않아도 되고, 스팀이 필요없어 시간에 구애받지 않고 작업할 수 있어 좋다"고 말한다.

에바 씨는 "처음 흰색 빨래를 해보고 하도 놀라서 깜짝 놀랐다"며 "유니섹 머쉰을 1년 가까이 쓰고 있는데 EM 덕분에 빨래 퀄리티도 너무 좋고 카트리지 필터를 아직까지 그대로 쓰고 있다. 이런 건 정말 처음 본다"고 감탄한다.

70 Palms Cleaners
(908) 464-0055
New York Machinery
(973) 575-1111 ■

Exhibit B

"New York Machinery Speaks. Dry Cleaners Please Pay Attention."

An Inevitable Consequence

I have been patient and rational when Korean Cleaners Monthly is overusing its precious pages on articles and advertisements that denigrate my company and products, but out of a concern that any more patience on my part would bring forth not only the self-destruction of Korean Cleaners Monthly but hindrance to the overall mood of the industry, I prepare this statement.

First, Unisec/Easysec is cheap Chinese-made product

Started selling in 2011, scored overall sales of over 400 machines at the end of 2016, running toward the goal of 500 machines.

I think this kind of accomplishment is the common result from the support of cleaners and actual user experience.

Unisec/Easysec is made by a Spanish company from its factory in Peking. Thinking that Chinese product is cheap and its manufacturing technology is behind Korea is truly behind the times, and Chinese manufacturing technology has already begun surpassing Korea. Furthermore, thanks to reduction in cost, it's called the world's factory. It's like saying Apple and Samsung is Chinese product since they are manufactured in China by Chinese labor. It's like saying Korean Cleaners Monthly becomes a Chinese magazine if it was printed at a Chinese printer. I ask Korean Cleaners Monthly not to use the expression that Chinese products are cheap, remove them from advertiser's copies and stop irritating the Chinese community.

Second, on EM soap

When I imported EM soap from Japan 15 years ago, I paid a lot of money to Korean Cleaners Monthly for advertising and tried to promote understanding of EM with numerous seminars. I have been receiving user's testimonials on its effectiveness. I disclosed its MSDS in Korean Cleaners Monthly a long time ago but what's important is not the quantity of EM content but the core of the technology is cultivation even with a small quantity. Don't get fooled by deceiving numbers.

Third, EM filter is a ghost product?

15 years ago, when my company began contacting several Japanese companies to import EM products, we confirmed that Two M Kasai is the best company and began importing. Except for the filters that Two M Kasai outsources to a subcontractor and supply to us.

Calling it a ghost product because we do not reveal the supplier is like calling Korean Cleaners Monthly a ghost magazine because we do not know where it is printed and publisher is not listed on the magazine, and who writes these articles, maybe ghost makes it, it's a magazine without substance

Fourth, ads that knock our products down using other company

It is a typical scheme employed by Korean Cleaners Monthly to procure advertisement, after obtaining information on the weakness of a competing advertiser, solicit advertisement on condition to hide such information, or run an ad that disparages a competing company that does not run ads, forcing it to bite the bullet and advertise. We checked with B21 president Kim that Korean Cleaners Monthly ran B21 Machine ad that puts down our products without his consent to cleverly bring about dispute. Comparison content is not correct, made up a rubbish comparison table, while hiding behind the scene it's scheming to make allied traders to fight and mislead readers.

Let's take a look at Columbia machine again. This is also an ad design that is perceived by many customers to disparage our product, whether it's turning a blind eye to the fact that it is illegal to install without ETL Mark to procure advertisement, or actually does not know this important regulation thereby letting consumers to suffer the damage. I implore Korean Cleaners Monthly not to pass up important information just to receive advertisement.

If you input the following address www.intertek.com/workarea/DownloadAsset.aspx?id+343597633858, you will see the original notice.

Fifth, on Korean Cleaners Monthly's attack on us,

All these problems are bound to happen because Korean Cleaners Monthly is in a monopolizing position. An objective magazine that should strive to promote cleaning industry's cooperation is biased, use threats to get advertisement, or forcibly cut off advertisement, for the last 20 years received entertainment from advertisers, making threatening comments that it can make someone die or live, solicit editorial style advertisement and receive money, does not consider them as the owner of the ads, wields pen with absolute power that reverses the relationship between one with power and one without, we were one of those weak advertisers who had to suffer all kinds of insults and suppress real feelings for 20 years. It was last September that I appealed for a reduction in advertisement expense due to continued bad business and diminishing effects of our ads, and it was this appeal that effected Seungchae Chung unable to control his anger, and throw one-sided notice to cut off all advertisement. That's when I reached on a careful decision that I can no longer play this game of tyranny and start supporting this magazine called Kleaners. It was everyone's agreement and help that for the healthy and balanced development of Korean cleaning business, we cannot stop this behavior like an organized crime with only one magazine, we supported the publication of this second cleaners' magazine and are

receiving a very good response from cleaners. Despite continued depression, Seungchae Chung from Korean Cleaners Monthly is collecting tens of thousands of dollar's profit from advertisers like a safe so he was seized by the thought that a start of a competing magazine can only take away from his pie and that is why he is disparaging my company and threatening my company to keep advertisers from advertising in Kleaners magazine.

We are collecting cases where advertisers were mistreated by Korean Cleaners Monthly, so let's not allow further damages and claim our proper rights as advertisers.

To conclude, cleaners' magazine can be owned by an individual but the purpose of its existence is for every cleaners. Dry cleaning industry is the most prominent business for Korean immigrants and we should cooperate and share information to do our share as American citizens and furthermore to pass on our business, cleaning media should take the lead.

Criticizing and biting to hurt one another among Korean cleaners just for the sake of one person will only hurt Korean cleaners.

I show respect to every cleaners who have stayed in this business for so long and I ask all of you to contact me if you have any suggestions or opinions for the development of Korean cleaning industry.

New York Machinery will always worry and work together.

Lee, Namgoo, President, New York Machinery

In a separate box on the third page:

We ask advertisers for help.

1. Cases where Korean Cleaners Monthly made an ad without your consent.

2. Cases where Korean Cleaners Monthly continued to run ads even though you asked to stop it.

3. Cases where you paid money for making editorial style ad.

4. Cases where you were asked to pay for air fare and entertainment for an article.

5. Cases where you provided information on a competitor and Korean Cleaners Monthly used it without examination.

6. All other cases of unreasonable or corrupt instances. We will run it on the proper

information magazine.

Exhibit C


US008110009B2

(12) **United States Patent**
Higa et al.

(10) **Patent No.: US 8,110,009 B2**
(45) **Date of Patent: Feb. 7, 2012**

(54) **PETROLEUM BASED PROCESSED DETERGENT FOR DRY CLEANING AND ITS USE**

(75) Inventors: **Teruo Higa**, Okinawa (JP); **Hirosi Kita**, Kagawa (JP); **Masahiro Mizukami**, Osaka (JP)

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 470 days.

(21) Appl. No.: **11/864,104**

(22) Filed: **Sep. 28, 2007**

(65) **Prior Publication Data**

US 2008/0241908 A1 Oct. 2, 2008

Related U.S. Application Data

(60) Provisional application No. 60/847,707, filed on Sep. 28, 2006.

(51) **Int. Cl.**
D06L 1/04 (2006.01)
D06M 16/00 (2006.01)

(52) **U.S. Cl.** **8/142**; 435/264; 510/481

(58) **Field of Classification Search** 435/264; 8/142; 510/481

See application file for complete search history.

(56) **References Cited**

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4,561,991 A * 12/1985 Herbots et al. 510/281

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* cited by examiner

Primary Examiner — Harold Pyon
Assistant Examiner — Katie L Hammer

(57) **ABSTRACT**

The present invention provides compositions and methods for dry cleaning garments. The present invention provides a petroleum based processed detergent for dry cleaning and methods of use. The present invention provides methods of using the petroleum based processed detergent for dry cleaning wherein use of the detergent decreases the proliferation of bacteria and microbes in the detergent, and reduces the opposite pollution ratio of the detergent following a dry cleaning cycle. Additionally, the petroleum based processed detergent maintains a stable conductivity during use.

12 Claims, 2 Drawing Sheets

FIGURE 1

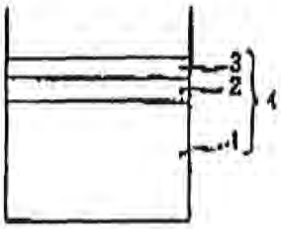
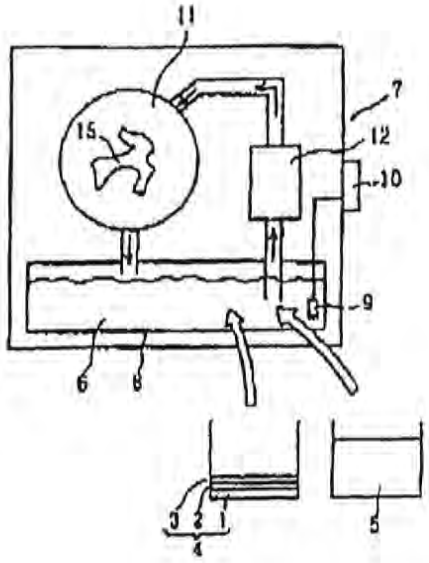


FIGURE 2



PETROLEUM BASED PROCESSED DETERGENT FOR DRY CLEANING AND ITS USE

CROSS REFERENCE TO RELATED APPLICATIONS

This application claims priority from U.S. provisional patent application Ser. No. 60/847,707, filed on Sep. 28, 2006, which is incorporated by reference in its entirety herein.

FIELD OF THE INVENTION

The present invention provides compositions and methods for dry cleaning garments. The present invention provides a petroleum based processed detergent for dry cleaning and methods of use. The present invention provides methods of using the petroleum based processed detergent for dry cleaning wherein use of the detergent decreases the proliferation of bacteria and microbes in the detergent, and reduces the opposite pollution ratio of the detergent following a dry cleaning cycle. Additionally, the petroleum based processed detergent maintains a stable conductivity during use.

BACKGROUND

Various types of detergent were reported for use with petroleum based solvents in the past. (e.g. see Tokkaihei, Japanese Patent Application No. 11-323381). However, the petroleum based detergent used for dry cleaning that was disclosed in 11-323381 had little effect on the multiplication of bacteria in the dry cleaning solution, which in turn caused stench and accumulation of sludge in the solution. Subsequently, when the mixture of the petroleum based solvent and the detergent (i.e. the dry cleaning solution), which is stored in the base tank of the dry cleaning machine, was repeatedly used, the problematic bacteria multiplied easily with time. In addition, the detergency for the laundry became ineffective, and there were other problems such as color loss, molds, and stench observed in the laundry. With multiple use, other problems were found: decrease in the operational stability of the static electricity sensors in the dry cleaning machine due to lowered conductivity of the solvent, reverse pollution where dirt is adsorbed back onto the fiber, and rise in the aniline point which is a measure of how much oil and fats are dissolved in the solvent.

Effective Microorganism technology has bee developed and used in a wide range of applications such as river purification, soil quality improvement and stench prevention in animal husbandry.

SUMMARY OF THE INVENTION

The present invention provides for a petroleum based processed detergent and methods of using the petroleum based processed detergent as part of a dry cleaning solution for dry cleaning materials, such as garments. The methods of the invention can reduce the rise of the aniline point that is normally associated with a dry cleaning solution following a dry cleaning cycle. The present invention also reduces the pollution ratio of the dry cleaning solution following a dry cleaning cycle, and at the same time, improves the conductivity of the dry cleaning solution.

In one embodiment of the invention, the petroleum based processed detergent includes a dry soap, an Effective Microorganisms (EM) which controls multiplication of harmful bacteria and microbes in the dry cleaning solution, and water, wherein the dry soap is acidified.

The invention also provides a dry cleaning solution containing a petroleum based solvent and the petroleum based processed detergent.

In another embodiment of the invention, the petroleum based processed detergent is used to dry clean materials, such as, for example, garments, as part of a dry cleaning solution, wherein the dry cleaning solution includes the petroleum based processed detergent and a petroleum based solvent.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** shows the structure of the petroleum based processed detergent relating to this invention. The petroleum based processed detergent (**4**) includes a dry soap (**1**), and Effective Microorganism (EM) (**2**) and water (**3**).

FIG. **2** shows a dry cleaning machine in which a garment is dry cleaned using the petroleum based processed detergent. A petroleum based solvent (**5**) and the petroleum based processed detergent (**4**) are placed in a base tank (**8**) in the dry cleaning machine (**7**), creating a dry cleaning solution (**6**) which is stored in the base tank (**8**) for use during dry cleaning. A soap control indicator (**10**) attached on the outside of the dry cleaning machine (**7**) measures the amount of petroleum based processed detergent (**4**) in the dry cleaning solution (**6**). A static sensor (**9**) installed on the base tank (**8**) transmits a signal to the soap control indicator (**10**), indicating the quantity of petroleum based processed detergent.

DETAILED DESCRIPTION

The present invention provides for a dry cleaning solution, wherein the solution includes a petroleum based processed detergent. The present invention also provides for methods of using the petroleum based processed detergent for dry cleaning materials, such as garments. The compositions and methods of the invention can reduce the rise of the aniline point that is normally associated with dry a cleaning solution following a dry cleaning cycle, and can also reduce the opposite pollution ratio of the dry cleaning solution following a dry cleaning cycle. The compositions and methods of the invention can also improve and stabilize the conductivity of the dry cleaning solution. The present invention provides additional advantages over existing dry cleaning solutions and detergents, for example, a reduction in proliferation of bacteria, fungus and microbes in a dry cleaning solution, and a reduction in stench and accumulation of sludge in a dry cleaning solution following one or more dry cleaning cycles.

In one non-limiting embodiment of the invention, the petroleum based processed detergent includes 3-8 parts by weight of an Effective Microorganisms (EM).

In a further non-limiting embodiment, the EM can be, for example, but not limited to, lactobacillus, yeast, phototrophic bacteria, or mixtures thereof.

In another embodiment, the Effective Microorganisms inhibit multiplication of harmful bacteria and microbes in the petroleum based processed detergent and/or the dry cleaning solution, wherein the EM has an anti-oxidation and non-ionization effect on the dry cleaning solution.

In another non-limiting embodiment of the invention, the petroleum based processed detergent includes 3-8 parts by weight water.

In one embodiment, the water is distilled water. Alternatively, the water includes fine molecules.

In another non-limiting embodiment of the invention, the petroleum based processed detergent for dry cleaning

includes 100 parts by weight of a dry soap, wherein the dry soap is acidified to pH 3-4, preferably below pH 4.0, further preferably below pH 3.5, even further preferably pH 3.0-3.5.

Thus, according to the invention, the petroleum based processed detergent of the invention, is achieved by combining 3-8 parts by weight of Effective Microorganisms (EM) which controls multiplication of harmful microbes with an anti-oxidation and non-ionization effect, and 3-8 parts by weight of distilled water or water with fine molecules, adding to 100 parts by weight of the dry soap where it is acidified to pH 3-4, preferably below pH 4.0, further preferably below pH 3.5, even further preferably pH 3.0-3.5.

The method of dry cleaning using a dry cleaning solution comprising a petroleum based processed detergent which relates to the present invention, allows for reducing or decreasing the rise of the aniline point of the dry cleaning solution after one or more dry cleaning cycles. Such an effect is an advantage over known dry cleaning detergents which experience an increase in the aniline point following one or more dry cleaning cycles. In addition, according to the invention, the opposite or reverse pollution ratio of the detergent following one or more dry cleaning cycles can be decreased. According to the invention, the opposite or reverse pollution ratio of the dry cleaning solution is a comparison of the dirt, soil, fungus and/or bacteria present in the dry cleaning solution before one or more dry cleaning cycles and the dry cleaning solution following one or more dry cleaning cycles. Such pollutants are not desirable since they can be adsorbed onto the fibers of a garment being dry cleaned.

Furthermore, the compositions and methods of the invention can improve the detergent's conductivity, for example, by increasing the stability of the dry cleaning solution's conductivity, and thus, reduce operational stability decreases in the static electricity sensor which shows the density of the detergent in the dry cleaning solution.

According to the invention, a dry cleaning solution is used to dry clean materials, such as garments, wherein the dry cleaning solution includes the petroleum based processed detergent and a petroleum based solvent.

In one embodiment of the invention, the petroleum based solvent includes an aromatic type, a naphthene type and/or a paraffin type of solvent.

In one embodiment of the invention, the petroleum based processed detergent is at a concentration of 0.2-1.0% of the dry cleaning solution.

In an alternative embodiment, the dry cleaning solution includes both petroleum based solvent and 0.2-1.0% petroleum based processed detergent to petroleum based solvent.

In another embodiment of the invention, the dry cleaning cycle may be performed one or multiple times without filtering the petroleum based processed detergent, the petroleum based solvent, or the dry cleaning solution.

In another embodiment, following one or more dry cleaning cycles, and prior to initiation of a second or successive dry cleaning cycle, 3-5 cc of petroleum based processed detergent is added to the dry cleaning solution for every 1 kg of dry garment introduced into the machine for a second or successive dry cleaning cycle.

In another embodiment of the invention, a material, such as a garment, can be dry cleaned one or more times with a dry cleaning solution prepared and used according to the present invention without a loss in the texture of the garment.

As shown in FIG. **1**, the petroleum based processed detergent which relates to this invention utilizes the Effective Microorganisms (EM) (**2**). In one, non-limiting embodiment, the Effective Microorganisms, EM (**2**), is a collection of beneficial microbes such as, for example, but not limited to, lactobacillus, yeast and phototrophic bacteria, which are harmless to the human body. This EM (**2**) functions to control the proliferation of harmful fungus, bacteria and/or microbes in the dry cleaning detergent and solution. The petroleum based processed detergent which relates to this invention, consists of dry soap (**1**) for the dry cleaning, to which the Effective Microorganisms, EM (**2**), and the distilled water (or water with fine molecules) (**3**) are added. Preferably, the petroleum based processed detergent includes 100 parts by weight of the dry soap which is adjusted pH 3.5 (**1**), 3-8 parts by weight of Effective Microorganisms, EM (**2**), and 3-8 parts by weight the distilled water or water with fine molecules (**3**).

A dry soap (**1**) with a pH below pH 3.5 provides an environment in which the Effective Microorganisms (**2**) are highly activated. When pH is reduced too much, however, the activity of the microorganisms, such as phototrophic bacteria among other beneficial microorganism (**2**), is reduced. In one non-limiting embodiment of the invention, the pH of the dry soap is pH 3.0-3.5.

In another non-limiting embodiment, the dry soap is adjusted to a pH in which the Effective Microorganisms (EM) are active.

In one embodiment of the invention, a method of dry cleaning a garment includes the following steps:

First, as shown in FIG. **2**, both the petroleum based solvent (**5**) and 0.2-1.0% of the processed detergent (**4**) to petroleum based solvent are placed into a base tank (**8**) in a dry cleaning machine (**7**), wherein the petroleum based solvent and the petroleum based processed detergent comprise a dry cleaning solution (**6**) inside the base tank (**80**), where the solution is stored.

The quantity of the processed detergent (**4**) in solution (**6**), is measurable and readable on the soap control indicator (**10**), attached outside of the dry cleaning machine (**7**), which receives a signal from the static sensor (**9**), installed inside the based tank (**8**) assessing the detergent quantity.

Second, after a garment (**15**) is loaded into the washing drum (**11**), the dry cleaning machine (**7**) is activated, at which point the solution (**6**) in the base tank (**8**) consisting of the petroleum based solvent (**5**) and the petroleum based processed detergent (**4**), is filled, through a filter (**12**), and into the washing drum (**11**) where the garment (**15**) is washed. Alternatively, the garment can be added to the dry cleaning machine before the dry cleaning solution, or simultaneously with the dry cleaning solution.

According to the methods of the present invention, when garments in the washing drum are replaced, for example, at the completion of a first dry cleaning cycle and prior to the initiation of a second dry cleaning cycle, an additional application of the petroleum based processed detergent (**4**) is supplied into the solution (**6**), wherein the petroleum based processed detergent is in the ratio of 3-5 cc to 1 kg dry garments. Furthermore, the filter (**12**) functions to remove dirt and stench from the dry cleaning solution (the petroleum based processed detergent and/or the petroleum based solvent).

Finally, the solution (**6**) passes through the washing drum (**11**), and back into the base tank (**8**).

In one embodiment of the invention, the laundry time is performed as a batch washing of between 2 and 20 minutes, and a filter circulation of the dry cleaning solution of between 4 and 10 minutes.

In accordance with the compositions and methods of the invention, the EM of the petroleum based process detergent exerts synergistic anti-oxidization, non-ionization, effects on the dry cleaning solution, and a decrease in harmful fungus and/or bacteria in the dry cleaning solution, resulting in a

decrease in the reverse pollution ratio of the dry cleaning solution following one or more dry cleaning cycles.

EXAMPLES

Example 1

The data of in-range and out-of-range experiments by the dry cleaning methods according to the present invention are shown below.

Table 1-Table 3 demonstrate the comparison between the processed detergent (**4**) (the invention) and an existing detergent on the market (An existing product). Reverse pollution is influenced by the ratio of the detergent density to the petroleum based solvent (**5**).

Table 1 (in-range data 1) shows the result from the condition in which the density of the processed detergent (**4**) to the petroleum based solvent (**5**) is within the range of the recommended use of the processed detergent relating to this invention (0.2-1.0%). Table 2 (out-of-range data 1) indicates the outcome under the situation in which the density of the processed detergent (**4**) to the petroleum based solvent (**5**) is lower than the range of recommended use of the processed detergent relating to this invention (0.2-1.0%). Table 3 (out-of-range data 2) exhibits the consequence when the density of the processed detergent (**4**) to the petroleum based solvent (**5**) is higher than the range of recommended use of the processed detergent relating to this invention (0.2-1.0%).

The composition used in the experiment is defined as the composition of 5 parts by weight of the Effective Microorganisms (EM), and 5 parts by weight of the distilled water, added to 100 parts by weight of the dry soap. The duration time of each laundry cycle conducted for table 1-table 3 is: batch washing 4 minutes, filter circulating 5 minutes, extraction 4 minutes

TABLE 1

IN-RANGE DATA 1
(1.0% OF THE PROCESSED DETERGENT TO SOLVENT)

	RATIO OF REVERSE POLLUTION	
MATERIAL	The Invention	An Existing Product
Polyester	0.8%	1.4%
Polyester/Cotton	0.4%	1.9%
Cotton	1.3%	2.4%
Wool	0.9%	1.8%
Acryl	1.0%	2.4%

TABLE 2

OUT-OF-RANGE DATA 1
(0.1% OF THE PROCESSED DETERGENT TO SOLVENT)

	RATIO OF REVERSE POLLUTION	
MATERIAL	The Invention	An Existing Product
Polyester	2.3%	2.1%
Polyester/Cotton	2.6%	2.6%
Cotton	4.2%	4.3%
Wool	1.8%	1.8%
Acryl	2.2%	2.5%

TABLE 3

OUT-OF-RANGE DATA 2
(1.5% OF THE PROCESSED DETERGENT TO SOLVENT)

	RATIO OF REVERSE POLLUTION	
MATERIAL	The Invention	An Existing Product
Polyester	1.2%	1.6%
Polyester/Cotton	0.6%	1.8%
Cotton	1.4%	3.2%
Wool	0.9%	1.9%
Acryl	1.6%	2.6%

Table 1 (in-range data 1) above shows that the reverse pollution ratio of the petroleum based processed detergent (**4**) relating this invention, clearly decreases in comparison to that of the existing product.

In addition, table 2 (out-of-range data 1) indicates that when the density of the petroleum based processed detergent is below 0.2%, little difference can be observed between the invention product (**4**) and the existing product.

Furthermore, table 3 (out-of-range data 2) displays that the reverse pollution ratio by the petroleum based processed detergent (**4**) of this invention, clearly decreases in comparison to that of the existing product. However, when the density of the processed detergent exceeds 1.0%, it is observed that the texture of garments (**15**) is lost.

Examining the results from the above-mentioned in-range data 1 (Table 1), out-of-range data 1 (Table 2), and out-of-range data 2 (Table 3), it is observed that the reverse pollution ratio can be lowered without losing the texture of garments (**15**). This is possible when the density of the processed detergent to the petroleum solvent (**5**), is within the range of the dry cleaning methods of the invention (0.2-1.0%).

Table 4 below (in-range data 2) exhibits the results of the aniline point test of the solution (**6**). According to the methods of the present invention, a garment (**15**) was washed by dry cleaning. The aniline points of the solution (**6**) on pre-washing state is tested by comparison with that of post-500-time-wash. The processed detergent used in this experiment is the same as the detergent used above and defined by Tables 1-3.

TABLE 4

IN-RANGE DATA 2

	ANILINE POINT TEMPRETURE DIFFERENCE BET. PRE-	ANILINE POINTS		
SOLVENTS	WASH & POST-WASH	PRE-WASH	POST-500-TIME-WASH	STANDAND VALUE
Aromatic type (Begazole 3040)	1.0° C.	53.8° C.	54.8° C.	56° C.
Naphthene type (New Sol DX High Soft)	1.3° C.	65.2° C.	66.5° C.	67° C.
Paraffin type (Nikko White N-10)	0.8° C.	77.2° C.	78.0° C.	78° C.

Table 4 above (in-range data 2) demonstrates that there is little difference observed in terms of the aniline points of the solution (**6**) on the post-500-time-application by comparison with the pre-washing state. In addition, comparing the aniline

points of solution (6) on post-500-time-application to that of standard value does not display any differences.

Table 5 below shows the result of measuring the conductivity of the solution (6). This test is executed to see how conductivity is influenced by the processed detergent of this invention (4), by comparison with an existing detergent (an existing product). Five different densities of the processed detergent to the petroleum based solvent (5) were used: 0.1%, 0.2%, 0.5%, 1.0% and 1.5%. The conductivity is determined by the stable time on the soap control indicator (10).

TABLE 5

	OUT-OF-RANGE DATA 3 DENSITY OF DETERGENT 0.1%	IN-RANGE DATA 3 DENSITY OF DETERGENT 0.2%	IN-RANGE DATA 4 DENSITY OF DETERGENT 0.5%	IN-RANGE DATA 5 DENSITY OF DETERGENT 1.0%	OUT-OF-RANGE DATA 4 DENSITY OF DETERGENT 1.5%
THE INVENTION	Unreadable	30 min.	65 min.	230 min.	300 min.
AN EXISTING PRODUCT	Unreadable	Unreadable	30 min.	150 min.	220 min.

Table 5 above indicates that in the case of the out-of-range data 3, in which the density is 0.1%, neither the processed detergent according to the invention, nor the existing product exhibited stabilization of the soap control indicator (10). On the other hand, in the case of the out-of-range data 4, in which the density is 1.5%, stability of the petroleum based processed detergent (4) of this invention improves as compared to the existing product. However, in this case, the texture of the garment (15) is lost.

In case of the in-range data 3 (density 0.2%), the in-range data 4 (density 0.5%), and the in-range data 5 (density 1.0%), the stability of the processed detergent (4) of this invention is improved more clearly than that of the existing product. No problems are observed in terms of the texture of garment (15). Considering all the results from the out-of-range data 3, out-of-range data 4, in-range data 3, in-range data 4, and in-range data 5 in table 5 above, it is observed that the conductivity can be satisfactorily stabilized on the soap control indicator (10) without damaging the texture of garment (15). This is possible when the density of the processed detergent to the petroleum solvent (5), is kept within the range of the dry cleaning method of this invention (0.2-1.0%).

The dry cleaning method using the petroleum based processed detergent relating to this invention can prevent weakening of detergency because Effective Microorganisms, EM (2), can control the multiplication of harmful bacteria in the solution (6) even after many laundry washing cycles. Because of this, by comparison with existing products, a loosening, or relaxation, of the rise in aniline points, which is an indication of fat-solubleness, is induced, even after repeated laundry processes.

Concretely, with the use of an aromatic type, naphthene type and paraffin type of solvent, the method can decrease the aniline point in comparison to an existing product by 1.0-2.0 centigrade degree following post-500-time-wash.

In addition, by comparison with an existing petroleum based detergent, the detergent of the present invention can control reverse pollution, such that damage to the color of the garment (15) from soil in the solution (6) adsorbed back onto the fabric is reduced.

By applying 0.2-1.0% of the processed detergent (4) to a petroleum based solvent (5), and further, by adding 3-5 cc of the processed detergent (4) to the dry cleaning solution for every 1 kg of dry clothing added to the washing drum for a subsequent wash, anti-oxidation and non-ionization of the dry cleaning solution can be induced and maintained, resulting in a decrease in the reverse pollution ratio of the dry cleaning solution.

The petroleum based processed detergent can therefore improve the conductivity of the solution (6) by use of the processed detergent constituting of 100 parts by weight of the dry soap which is adjusted pH 3.5 (1), 3-8 parts by weight of Effective Microorganisms, EM (2), and 3-8 parts by weight the distilled water or water with fine molecule (3). Thus, when the density of the processed detergent (4) to the petroleum based solvent (5) is set to be lower than that of existing products in market, it is possible to reduce the use of antistatics in to prevent static explosions. This is made possible because of the non-ionization effect which EM provides.

Additionally, because the invention improves conductivity, the imbalance of operational stability of static sensor (9) connected to the soap control indicator (10) which shows the density of the processed detergent (4) for the petroleum based solvent (5), is corrected. Such correction is possible when the density of the processed detergent (4) to the petroleum based solvent 5 is set between 0.2-1.0%.

It is possible to create an ideal condition for the activation of Effective Microorganisms (2) by adjusting the pH level of the dry soap (1) to below pH 3.5. Thus, activating the Effective Microorganisms (2) to achieve maximal detergency.

In addition, comparison of the use of tap water and distilled water in the detergent, it is noted that distilled water (3) (or water with fine molecules) can control or decrease the quantity of impurities in the water, which are detrimental maximal Effective Microorganisms (2) functionality. Thus, it is possible to raise the effectiveness of the detergent by preventing such a decrease in EM activity.

All percentages or weights described herein presumed to include the term about before the numbers used therefore. Various publications are cited herein, the contents of which are hereby incorporated by reference in their entireties.

What is claimed is:

1. A dry cleaning solution which comprises a petroleum based solvent and a petroleum based processed detergent, wherein the petroleum based processed detergent further comprises a dry soap, an effective microorganism and water, wherein the effective microorganism is selected from the group consisting of lactobacillus, yeast, phototrophic bacteria, or a mixture thereof and the dry soap is acidified.

2. The dry cleaning solution of claim 1, wherein the concentration of the petroleum based processed detergent is 0.2-1.0%.

3. The dry cleaning solution of claim 1, wherein the petroleum based solvent is selected from the group consisting of an aromatic, a naphthene and a paraffin of solvent.

4. The dry cleaning solution of claim 1, wherein the effective microorganism inhibits oxidation and ionization of the dry cleaning solution.

5. The dry cleaning solution of claim 1, wherein the pH of the dry soap is between 3.0-3.5.

6. The dry cleaning solution of claim 1, wherein the effective microorganism is lactobacillus.

7. The dry cleaning solution of claim 1, wherein the effective microorganism is yeast.

8. The dry cleaning solution of claim 1, wherein the effective microorganism is phototrophic bacteria.

9. The detergent of claim 1, wherein the pH of the dry soap is below 4.0.

10. The detergent of claim 1, wherein the pH of the dry soap is below 3.5.

11. The detergent of claim 1, wherein the detergent comprises 3-8 parts by weight of the effective microorganism.

12. The detergent of claim 1, wherein the detergent comprises 3-8 parts by weight of water.

* * * * *

Exhibit D

AVOMEEN
ANALYTICAL SERVICES

Avomeen Analytical Services
4840 Venture Drive
Ann Arbor, MI 48108
Phone: 800 930 5450
Fax: 800 930 5479
www.avomeen.com

Certificate of Analysis

Date Received: 06 September 2016	Client: Hyung Kim, DFW Drycleaning, 469 569 3811, 2154 Royal Ln., Dallas TX 75229	Method: USP <61> Microbial Examination of Nonsteril Products: MicrobialEnumeration Tests USP <62> Microbiological Examination of Nonsterile Products: Tests for Specified Microorganisms	
Test Date: 06 September 2016- 28 September 2016	Sample Description: Natura EM Soap Hydrocarbon Soap Lot #: 382420	Avomeen ID.: 090616TC2176	Expiration Date: N/A
		Avomeen Project Code: 16-37259	

Analysis	Result
Total Aerobic Microbes	< 10 cfu/g
Total Yeast/Mold	< 10 cfu/g
Staphylococcus Aureus	ND
Pseudomonas Aeruginosa	ND
Salmonella Species	ND
Candida Albicans	ND
Bile Tolerant Gram Negative	ND
Clostridium Species	ND

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The work reported herein was conducted non- GMP and was not reviewed by Quality Assurance. All data in this report accurately reflects the raw data stored in the archives of Avomeen Analytical Services.

Exhibit E

Case Study
Biodegradation of the Anto Shore 7 Years After the Russian Tanker Oil Spill in the Sea of Japan

Bioremediation and its Effectiveness

Takahiro Kanno, MPH
12/16/04

ABSTRACT

Introduction: The Russian tanker Nakhodka, sunk in the Sea of Japan and spilled 6,240 kiloliters of crude oil in January 1997. Many volunteers worked at the worst contaminated site, Anto shore. Thanks to the volunteers' cleanup efforts, it looked like all the crude oil had been removed and decomposed over the period of 7 years (1997-2004). However, it was not sure whether the crude oil had completely disappeared from the Anto shore. Therefore, the shore needed to be investigated how much crude oil had decomposed.

Purposes: This study aimed first to compare pebble sampling results from 1997 to those of 2004; to assess the process of biodegradation over the period of seven years; second to evaluate the cost and efficiency of possible alternative waste disposal methods relative to physical removal methods; and third to make recommendations about efficient oil collection and waste disposal methods for future oil spills in a marine environment.

Method: In Phase I of the Environmental Site Assessment (ESA), the study site was carefully investigated. In Phase II, four pebble samples were taken from the Anto shore in 2004 and analyzed with a GC/MS and then compared the results to those in 1997. In Phase III, Effective Microorganisms (EM1) experiment was conducted for 90 days. Control, treated soil, and treated pebbles were prepared using EM1 and fermented organic matter. Each sample was analyzed using the EPA 5030 and 8020 methods.

Results: No contaminants were identified on the surface of the pebbles. However, some form of crude oil was found in select locations. In the EM experiment, EM1 contributed to decomposing Benzene, Toluene, Ethyl Benzene, and Zylene (BTEX). Also, the difference between BTEX concentrations in the control tray and the treated trays was found to be statistically significant towards the end of the experiment.

Conclusions: The surface of the pebbles at the Anto shore has recovered in the period of 7 years. However, the crude oil was still observed in some locations surrounding the Anto shore. As a consequence of the inadequate cleanup instructions, some oil deposits remained. Compared to the physical removal methods, the bioremediation using EM1 was more effective. These findings suggest the need to develop more effective oil removal method in a marine environment for future oil spills.

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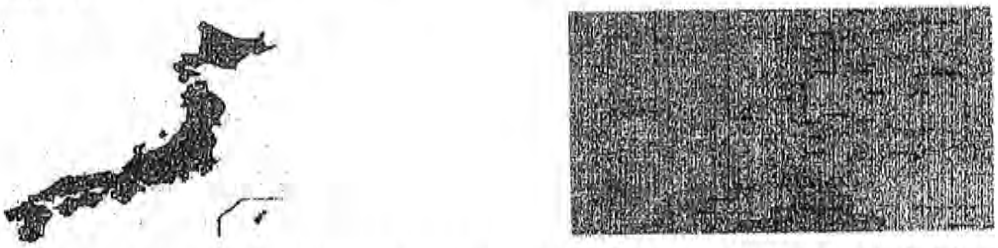
INTRODUCTION

Crude oil, which is found trapped in certain rocks below the earth's crust, is used to produce fuel for cars, trucks, airplanes, boats, and trains.[1] It is a very practical material for human beings. However, once released into the environment, it can cause significant environmental destruction as well as potential adverse health effects, such as sore throat, skin irritation, and headache for human beings.[2]

On January 2, 1997, the Russian tanker Nakhodka, with a cargo of about 19,000 kiloliters (501,9800 gallons) of crude oil, sunk in the Sea of Japan. This incident occurred when the tanker was transporting the crude oil from Shanghai to Petropavlovsk, Russia.[2] The tanker built in 1970 was hit by a big wave and split into two pieces. When the tanker hit the wave, the height of the wave reached 7.9 meters (25.9 feet). The body section with about 11,200 kiloliters (295,9040 gallons) of oil sunk onto the sea bottom of 2,500 meters (8202.5 feet) depth and kept releasing oil. The bow section with about 2,800 kiloliters (739,760 gallons) of oil ran near the shore of the Anto district in Mikuni town, creating the worst oil contamination in Japan (Figure 1).[3] A total amount of 6,240 kiloliters (164,8608 gallons) of oil was spilled from the two pieces of the tanker.[4] The spilled crude oil drifted and eventually deposited on the beautiful coastlines, affecting both environment and public health.

FIGURE 1.



Japan and Fukui Prefecture of Japan. Information Resource, Japan-101.[5] ▲= Location where the bow section was landed

Following this incident, since there was no specific oil spill removal method in Japan, physical removal methods were conducted based on the U.S. Environmental Protection Agency's (EPA) cleanup methods which were also utilized in the Exxon Valdez oil spill in 1989.[6] About 260,000 volunteers performed physical cleanup activities based on the EPA's methods using ladles, shovels, machines, and even hands to transfer into buckets under severe weather conditions for three months.[6] On account of the bad weather conditions and long hours of removal activities, five workers died from fatigue and heart attacks. In addition, harmful chemicals in crude oil, such as Benzene, Toluene, Ethyl benzene, Xylene (BTEX) affected volunteers' health because the head of the oil spill response team from a local government did not properly instruct the volunteers to wear personal protective equipment such as gloves, masks, and safety glasses. Many volunteers suffered from skin irritation, sore throat, stinging or redness of the eyes, nausea, dizziness, and headache.[2]

After the extensive cleanup activities, a total of 560,000 kiloliters (147,952,000 gallons) of oil mixed with seawater, sand, and gravel was collected with the physical removal methods.[6] Although these physical removal activities were the first response option of choice for the cleanup of oil spills in a marine environment, they have rarely achieved complete cleanup of oil spills.[7] Fortunately, tons of the crude oil were removed from the Anto shore by the volunteers' hard work, but at the same time, at least $80 million was spent for the physical cleanup activities and waste disposals.[3]

In February 1997, the Environmental Protection Technical Response Project Team (EPTRPT) conducted the site investigation at the Anto shore. The EPTRPT, which was organized by the Fukui Environmental Health Research Center, was the emergency response team for the Russian tanker oil spill incident. The EPTRPT selected the most contaminated site, the Anto shore as their sampling site. They took samples from the Russian tanker and four different locations of the Anto shore and then analyzed chemical concentrations with a Gas Chromatograph and Mass Spectrometry (GC/MS) at the Chemical Analytical Center in the University of Niigata. Although the EPTRPT continued to observe environmental effects at the Anto shore until March 1998, they had not collected any environmental data at the Anto shore since 1997.

It has been over 7 years since the incident occurred. It appeared like all the crude oil had been removed and decomposed over the period of 7 years (1997-2004). However, it was not known whether the crude oil had completely disappeared from the Anto shore. Therefore, the shore needed to be evaluated how much crude oil had decomposed and if the crude oil still remained, it needed to be investigated why the crude oil had remained for over 7 years and what oil removal method would be effective for future oil spills in a marine environment.

PROJECT DESIGN

In this study (2004), the Anto shore in Mikuni town was selected for the site investigation since it was damaged the most severely and a great number of volunteers helped to clean up this area. Given the cleanup efforts and 7 years of degradation, it was predicted that the crude oil had completely decomposed in the Anto shore. The main

purposes of this study were first to assess the process of biodegradation over the period of 7 years and to compare the levels of crude oil in 1997 to those in 2004, second to evaluate the cost and efficiency of possible alternative waste disposal methods relative to physical removal methods, and third to make recommendations about efficient oil collection and waste disposal methods for future oil spills in a marine environment.

For these purposes, the standard practice for Environmental Site Assessments (ESA) E1527-00, Phase I, Phase II, and Phase III established by the American Society for Testing and Materials (ASTM) needed to be conducted in the study of 2004.[8] In Phase I, the investigation of the present site condition and background cleanup activities at the Anto shore was conducted. The investigation included (1) obtaining a topographic map, (2) conducting personal interviews with individuals familiar with the site, (3) conducting the site inspection to evaluate present site condition, (4) picture taking and sketching, and (5) record keeping with findings from Phase I. In Phase II, the site investigation, including soil sampling and analysis, was conducted at the Anto area. In Phase III, bioremediation was assumed to be the suitable disposal method for this type of waste. Bioremediation, which is cheaper and safer than physical removal methods, allows natural processes to clean up harmful chemicals in the environment.[9] In addition, its end products can be useful for farms and landfills. For these reasons, the bioremediation experiment was conducted with the use of effective microorganisms (EM 1, microbial inoculant) and fermented organic matter made with EM. These supplies were provided by the Effective Microorganisms Research Organization (EMRO). The technology of EM was originally developed by Dr. Higa at the University of Ryukyus, Okinawa, Japan in the 1970's.[10] EM 1 is comprised of three main microorganisms: lactic acid bacteria,

yeast, and phototrophic bacteria. These microorganisms like to eat certain harmful chemicals such as BTEX and convert them into water and harmless gases such as carbon dioxide.[10]

METHODS

Phase I:

Before conducting Phase II, the background of this site needed to be reviewed. The local map of the Anto district was obtained from the public library in Mikuni town. The investigation site was identified and marked on the local map (Figure 2).

FIGURE 2. LOCAL MAP OF THE ANTO DISTRICT

▲= Investigation Site, Anto Shore[11]

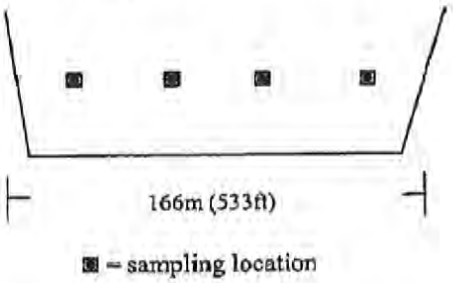
Professor Tsujimoto at Japan Advance Institute of Science and Technology (JAIST) was interviewed both about the effectiveness of oil removal activities in the 1997 Russian tanker oil spill as well as about the biodegradation of crude oil. Professor Tsujimoto has been investigating the contaminated shores of the Sea of Japan for over 7 years. The site and area surrounding the site were carefully inspected, and a record was kept of any suspicious contaminants observed. Many pictures were also taken at the site.

Phase II:

As the follow up of the EPTRPT's study in 1997, further site investigation was conducted at the Anto shore on June 9, 2004. In order to determine the sampling

locations, the site was measured with a measuring tape. The total length of the area was approximately 166 meters (553 feet). Since no specific type of sampling protocol was suggested, the sampling was conducted based on the New York State Department of Environmental Conservation's (NYDEC) sampling procedures. Prior to sampling, the total length of 166 meters was divided by four and determined four sampling locations. Each location was properly staked as it was measured (Figure 3).

FIGURE 3. Four-Pebble Sampling Locations at the Anto Shore



All the leaves, grass, and surface debris were removed from each sampling location using a clean stainless steel scoop or shovel.[12] Collection of samples from the upper 10 cm of pebbles was accomplished with a stainless steel scoop in each location. Each sample was appropriately placed in an 110 ml polyethylene plastic labeled container, and the cap was closed tightly. In order to avoid cross-contamination, the stainless steel scoop was washed thoroughly with tap water after every sample was taken.[13] After all the samples were taken, the site and area surrounding the site were carefully investigated in order to find any oil residue. On the same day, each sample was delivered to Mr. Goto, director and chemical analyst of the Chemical Analytical Center at the University of Niigata, Japan.

At the analytical center, the four samples were analyzed using the same method, GC/MS analysis as EPTRPT's study (1997) to ensure comparative measures. GC analysis can separate chemicals in each sample. The GC instrument vaporizes the sample and then separates and analyzes the various chemicals. Each chemical produces a specific spectral peak that is recorded on a paper chart. MS analysis can identify chemicals by electrically charging the specimen molecules, accelerating them through a magnetic field, breaking the molecules into charged fragments and detecting the different charges.[14]

According to Mr. Goto, the dichloromethane extraction method needed to be introduced in order to extract an appropriate sample for the GC/MS analysis because it had a higher extraction rate than other extraction methods. In this method, 10g of each sample, which was dried in a desiccator with silica gels, was mixed with 5ml of dichloromethane and then placed in a shaker for 10 minutes. After they were thoroughly mixed, each sample was taken out with a 0.1um membrane filter. These extracted samples were analyzed by the GC/MS. All the data was entered into the SPSS software, and statistical analysis of the 1997 and 2004 values was performed using a Chi-squared test. A value of $P<0.05$ was regarded as significant. Also, percentage differences between 1997 and 2004 results were calculated.

The GC and MS analysis was performed with a HP-5890 series II instrument equipped with J&W scientific Inc., DB-1 capillary columns (30m x 0.25, 0.25um film thickness), and a JEOL JMS-AX 505WA ion mass detector. Temperature of Column was held at 30 °C for 1 minute, then increased by 10 °C per minute to 300 °C for 2 minutes, total of 30 minutes. The transfer line and the ion source temperatures were 310

°C and 300 °C. Ions were generated by a 70 V electron beam at an ionization current of 300 uA. All the spectra were recorded in the mass range 25 to 500 m/z. The carrier gas, helium, was used at 30 ml per minute.

Phase III:

To establish a suitable waste disposal method, an effective microorganisms experiment was conducted for three months, from June 14 to September 13, 2004. In this experiment, EM 1 microbial inoculant was applied to oil contaminated soil and pebbles. Prior to the experiment, 1000ml of the Activated Effective Microorganisms (AEM), which is more effective and powerful than EM 1, was prepared according to the following instructions: 800ml of Colorado Spring water was mixed with 50ml of EM 1 and 50ml of sugar molasses in a 1000ml of plastic bottle. The bottle was shaken until the molasses was dissolved. The remaining 200ml of water was added to the top, and the cap was closed tightly. The bottle needed to be placed in a warm place until it was activated. Micro Essential Laboratory brand pH paper tester, which shows fourteen numbers and colors from zero and red as the most acidic to thirteen and dark blue as the most basic, was used in order to check whether the AEM was ready to be used.[15] After four to seven days, the pH was checked, and the color showed below 4, indicating a sign of the activation.[16]

Three different trays were prepared: a control tray with 2000g of soil and 200ml of crude oil; a treated tray with 2000g of soil and 200ml of crude oil with 300ml of AEM; and a treated tray with 2000g of pebbles and 200ml of crude oil with 300ml of AEM. In addition to these three trays, a gasoline contaminated soil was prepared in case of gasoline spills with the same instructions as the oil contaminated soil. The crude oil was

obtained from the power house at the Rockefeller University, New York. The gasoline was purchased at a local gas station. In order to avoid other contamination, 5 pounds of soil, manufactured by Glacial Soils L.L.C, was purchased at Home Depot and used in the experiment. Pebbles taken from the Anto shore were used for the experiment. 10g of fermented organic matter were also applied for the treated trays. For comparative purposes, a 100g of sample was taken from the control and shipped by FedEx to Schneider Laboratories in Richmond, Virginia on June 15, 2004.

After all the components were mixed thoroughly, each tray was covered with a plastic sheet and then placed in a plastic case with a cover. The purposes of the plastic sheet and case were to maintain the temperature between 30 °C and 40 °C and to create an anaerobic environment in order to provide suitable living conditions for microorganisms. The temperatures of soil, pebbles, and the inside of the plastic case were recorded everyday at 6:00PM. On July 14 and August 14, additional 100ml of AEM and 10g of fermented organic matter were added on both treated trays. On September 14, 100g of the sample was taken from each tray and shipped by FedEx to Schneider Laboratories.

On September 17, the laboratory analysis was conducted based on the U.S. EPA 5030, the purge-and-trap and 8020 methods.[17] First, to introduce volatile compounds into the GC, EPA 5030 method was used. To extract an appropriate sample for the Gas Chromatograph and Photo Ionization Detector (GC/PID) analysis, the methanol extraction method was utilized. In this method, 5g of each sample, which was dried in a desiccator with silica gels, was mixed with 5ml of methanol. The 1:1 soil to solvent ratio appeared to work well for solid samples because they did not expand to soak up the

methanol when it was added. Then 5g of each sample with methanol were placed in a 10ml flat bottom glass volumetric flask for 10 minutes until all wet surfaces had dried. After all surfaces had thoroughly dried, each sample was placed in a 40ml glass vial and slid into the purge head.

Second, to determine the concentration of various aromatic volatile organic compounds, such as benzene, ethyl benzene, toluene, and xylene (BTEX), the EPA 8020 method was introduced. In this method, an inert gas was bubbled through a 5g of soil sample contained in a specially designed purging chamber. After purging was completed, the trap was back flushed with the inert gas to program the absorption of purged materials onto a capillary column, where they were separated and detected with a photo-ionization detector (PID).[17]

The GC and PID analysis was performed with a HP-5890 series II and h-Nu Systems, Inc., model PI-51-02. Two capillary columns were used: Column 1 measured 6 feet x 0.082 inches. The model number was 304 with stainless steel. Column 1 was used as the primary analytical column. Column 2 measured 8 feet x 0.1 inches with stainless steel. Column 2 was used to detect some of the aromatics which were not identified with Column 1. Temperature of Column 1 was held at 50 °C for 2 minute, then increased by 50 °C to 90 °C for 6 minutes until all compounds extracted. Temperature of Column 2 was held at 50 °C for 2 minute, then increased by 50 °C to 100 °C for 3 minutes until all compounds extracted. The transfer line and the ion source temperatures were 310 °C and 300 °C. The Carrier gas, helium, was used at 36 ml per minute for Column 1 and 30 ml per minute for Column 2.

RESULTS

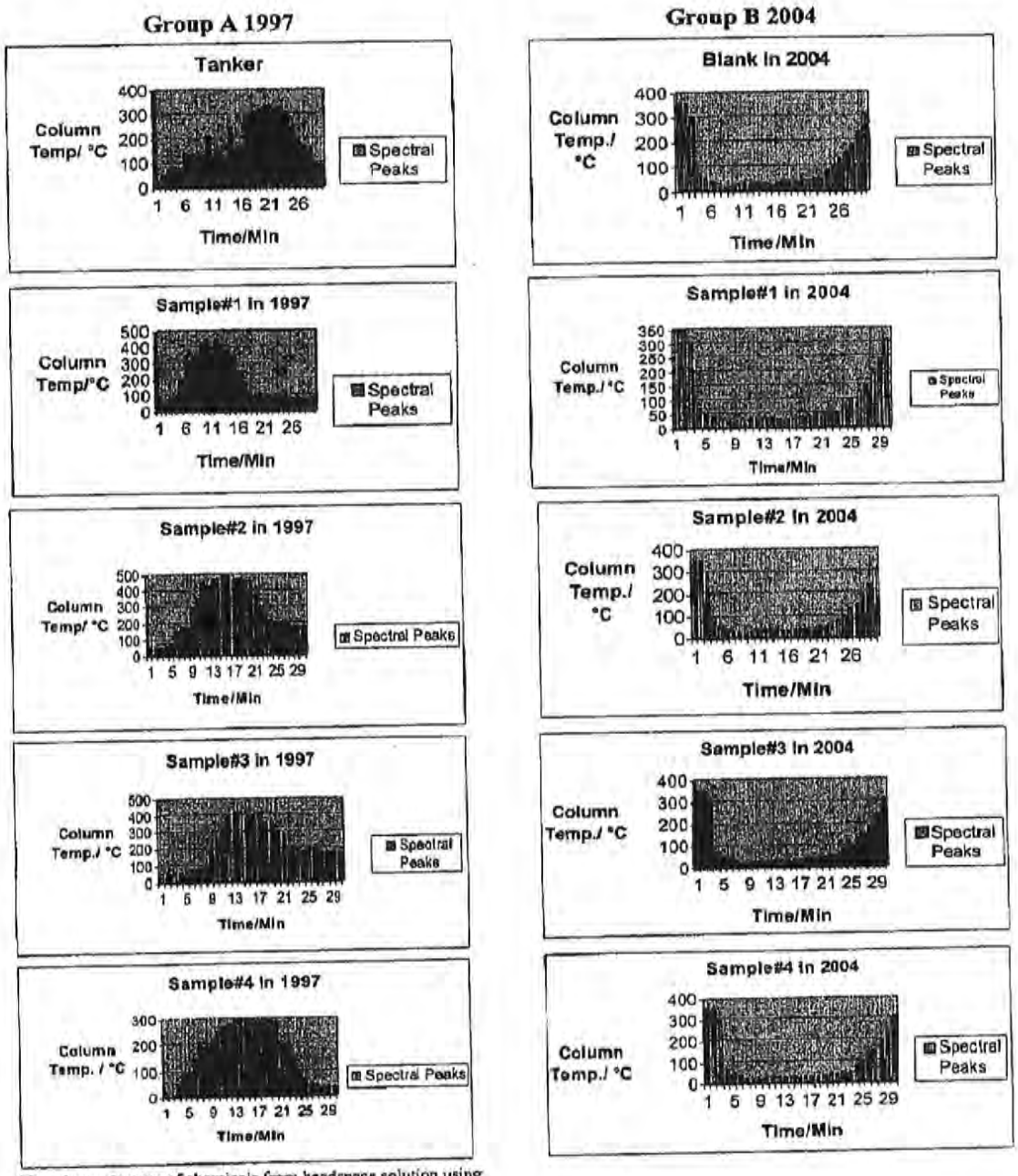
Phase I:

After the 3 hours of intensive investigation, some form of crude oil was found in some locations surrounding the site where nobody could access it or conduct removal activities. The examples of those places were between rocks, bottom of rocks, and rocks off the shore. Unfortunately, the oil samples were not able to be taken because those locations were extremely slippery. Also, it was observed that nothing was growing on the surface of those oiled rocks.

Phase II:

Figure 4 compared the GC patterns in the contaminated pebbles at the Anto shore between 1997 and 2004. Group A showed the peaks of the crude oil from the Russian tanker and the four locations at the Anto shore in 1997. Group B showed the blank and the four locations at the Anto shore in 2004. In Group A, the GC identified many spectral peaks. Compared to the spectral peaks from the tanker, each sample showed the same kind of GC patterns. For instance, samples 2 and 3 in 2004 showed almost the same patterns as the sample from the tanker. This indicated clearly that the Anto shore was contaminated with the crude oil from the Russian tanker in 1997. On the other hand, group B showed consistency, and no specific spectral peaks were identified. For instance, the four samples showed the same GC patterns as the blank. Although some chemicals may have still existed in the samples, they were below the detectable limit which was less than 100 parts per billion (ppb).

Figure 4: Gas chromatograph patterns in contaminated pebbles at Anto shore in 1997 and 2004



*Gas chromatogram of chemicals from headspace solution using extraction with 5ml dichloromethane sorbent and desorption at 300 °C in 1997 (left column) and 2004 (right column).

Overall, the difference of the GC patterns between 1997 and 2004 was statistically significant. Table 2 compared the average concentrations of BTEX among crude oil at Anto shore in 1997, 2004, and the maximum contaminant levels (MCLs) set by the EPA.[18] The BTEX concentrations declined > 88.9% between 1997 and 2004. These changes were statistically significant, based on a Chi-square test ($p < 0.05$). According to the EPA's groundwater standards, if the concentrations in the extract are less than or equal to the MCLs, then the soil may be considered environmentally acceptable for groundwater protection.[18] Thus, the concentrations of BTEX in 1997 were not environmentally acceptable except for Xylenes. On the other hand, although all the chemical concentration was below the quantitation limit and did not show any peaks on the graph, the average BTEX concentrations from 2004 showed that only Benzene possibly exceeded the MCLs.

TABLE 2. Average Total BTEX Data from Four Sampling Locations at Anto Shore in 1997 and 2004, the U.S. EPA's Groundwater Standard (MCL), and Chi-squared Test at a Confidence Interval of 95% Unit=ppb

					1997&2004	1997 VS. 2004	
	Sample #s	Feb, 1997	June, 2004	MCL	% Change	P-value	SD?
Benzene	4	900	BQL<100	5	>88.9%	>0.001	Yes
Toluene	4	8200	BQL<100	1000	>98.8%	>0.001	Yes
Ethylbenzene	4	3700	BQL<100	700	>97.3%	>0.001	Yes
m,p,o-Xylene	4	5250	BQL<100	10000	>98.1%	>0.001	Yes

Sample concentrations below the quantitation limit are noted as BQL (below Quantitation Limit) BQLs were calculated as 100ppb
SD?=Significantly Different? All data for the control and treated plots for each sampling procedure were subjected to the Chi-squared test to determine whether the two groups of data were different at a 95% confidence interval

Phase III:

Table 3 showed the average temperatures, ranges, and the numbers of days between 30 °C and 40 °C of outside, inside of the case, control, treated soil, and pebbles between June 15 and September 14, 2004. All the temperatures were shown in an

Appendix A. Although the average temperatures in the Central Park, New York City, were not acceptable for this bioremediation experiment, the average temperatures of in inside of the case, treated soil, and pebbles were successfully maintained at the acceptable range between 30 °C and 40 °C.

TABLE 3. Average Temperatures, Ranges, and Number of Days Between 30~40°C in Outside, Inside of the Case, Control, Soil, and Pebbles

	Outside/Avg	Inside	Control	Soil w/Oil	Pebbles w/Oil	Soil w/Gas
Avg. Temp.	22.37°C	31.19°C	31.68°C	31.29°C	35.57°C	31.27°C
Ranges(Low~High)	18.3~28.3°C	21.9~43.1°C	21.5~46.0°C	22.0~45.5°C	22.0~45.7°C	21.5~46.1°C
# of Days bet. 30~40°C	0	38	37	37	34	35

Average outside temperatures in the Central Park, New York City were obtained from wunderground.com[9]

Table 4 and 5 showed the concentrations, percentage changes, and statistical significant (based on X^2 test) of BTEX in the control samples before and after, treated soil, treated pebbles and treated soil with gasoline at the end of the bioremediation test with EM 1. Over the period of the experiment (90 days), the untreated control was found to have a stable concentration of hydrocarbons, whereas in the treated soil, the concentrations of each hydrocarbon significantly decreased over time. For instance, o-Xylene was reduced 88.82% from 894 ppb to <100 ppb. Toluene was reduced 79.4% from 487 ppb to <100 ppb. In the gasoline tray, Benzene was reduced almost 100%. The total of gasoline range organics was also reduced 89.54% from 4713 ppb to 493 ppb. The concentrations of each hydrocarbon in the treated pebbles with soil were also reduced, but they were not reduced as much as those in the treated soil. This indicated that EM 1 was more effective in soil rather than just in pebbles. The BTEX concentrations of the control before were not significantly different from the control after. However, the difference between BTEX concentrations in the control tray and the treated trays and the

gasoline tray before and after was found to be statistically significant towards the end of the experimental period.

At the start of the oil and gasoline treatment experiment, the colors of the untreated and the treated soils were mostly dark brown. Also, they were releasing a hydrocarbon odor for the first 30 days, but after that, the odor of hydrocarbons was not detected except for the treated pebbles. On June 21, some fungus colonies were observed on the surface of the treated soil, but nothing was seen on the untreated soil and the treated pebbles. On July 7, the number of fungus colonies was increased on the surface of the treated soil, but again nothing was observed on the surface of the untreated soil and the treated pebbles. For instance, the residue of oil was always remaining on the surface of the pebbles. For this reason, on July 14, 1000g of soil with 100ml of AEM and 10g of fermented organic matter were mixed with the pebbles in order to see the changes of the oil formation and hydrocarbons concentration in next 60 days.

TABLE 4. Total Recoverable BTEX Data from Control and Treated Trays.

	Control		Treated tray	Treated tray	% change & X^2	% change & X^2	% of change & X^2
	Before	After	Soil w/ Oil	Pebbles w/ Oil	Bef. & After in Control	bef vs. treated soil	bef vs. treated pebl
Benzene	BQL<100	BQL<100	BQL<100	BQL<100	0%	0%	
Toluene	487	438	BQL<100	216	11%	79.40%	55.
Ethylbenzene	194	181	BQL<100	169	4.30%	66.00%	42.
m,p-Xylene	1951	1938	BQL<100	581	0.67%	44.80%	70.
o-Xylene	894	878	BQL<100	BQL<100	1.79%	88.82%	88.
Total BTEX	3726	3635	<500	<1166	2.45%	>86.59%	>68.
X^2					2.07	520	
P-Value					0.72	0.001	0
SD?					No	Yes	

TABLE 5. Total Recoverable BTEX Data from Treated Trays with Gasoline

	Gasoline		% change Bef.& After and X^2 (BTEX)
	Before	**After**	
Benzene	25718	BQL <100	99.61%
Toluene	23623	944	98.65%
Ethylbenzene	70210	1334	98.10%
m,p-Xylene	122403	1830	98.51%
o-Xylene	38099	406	98.94%
Total BTEX	280053	4614	98.36%
Gasoline range organics	4713	493	89.54%
X^2			0.221
P-Value			0.001
SD?			Yes

Sample concentrations below the quantitation limit are noted as BQL (below Quantitation Limit)
BQLs were calculated as 100ppb. Unit=ppb. X^2=Chi square.
SD?=Significantly different? All data for the control and treated plots for each sampling procedure were subjected to the Chi-squared test to determine whether the two groups of data were different at a 95% confidence interval

DISCUSSION

Compared the environmental conditions and the chemical concentrations of BTEX at the Anto shore in 1997 with 2004, the surface oil of the pebbles was significantly lower. The EPTRPT stated that some crude oil was still observed about a year after the incident. However, the crude oil on the surface was washed away by waves in the winter. For this reason, the pebbles in the Anto shore were 70% recovered by March 1998.[2] In the Sea of Japan, strong winter winds generate large waves that also contributed to accelerating the oil decomposition along with the volunteers' cleanup activities. Hayes also indicated that heavy wave action is the most effective natural process for clearing shorelines of oil.[20] The Office of Technology Assessment (OTA) stated that current physical removal methods typically recover no more than 10 to 15 percent of the oil after a major oil spill depending on the environment.[21] Thus, the physical removal methods at the Anto shore might not have contributed to removing the crude oil effectively. Rather, waves during the winter season constituted the strongest

physical force for the removal of oil from the surface of the pebbles. However, further site observations indicated, unexpectedly, that some form of crude oil was persisted in rock cracks or under rocks where geographic armoring by boulders and cobbles inhibited disturbance by waves and cleanup activities. Similarly, in the Exxon Valdez oil spill in 1989, oil remaining was found by cobble-boulder surface armor or by mussel beds in the late 1990s.[22] At the Anto shore, there was relatively less seaweed on oiled rocks than uncontaminated rocks. Professor Tsujimoto explained that the color of oiled rocks had been changed from black to red to white. He said, "Nothing is growing on these rocks." The volunteers might not have conducted cleanup activities on those oiled rocks because some administrators with lack of field knowledge did not provide adequate cleanup instructions for the volunteers. For this reason, the volunteers' physical removal activities were not 100 percent accomplished at the Anto area.

Even if the volunteers had been adequately instructed, physical methods are not efficient in terms of costs and safety. In the Russian tanker oil spill incident, the volunteers collected 269,230 55-gallon drums of oil sludge with seawater, sand, and gravel.[6] It was estimated that the waste disposal costs were about $24,230,700, excluding transportation and labor fees. Similarly, in the Exxon tanker oil spill, over $1 million per day was spent on physical washing of shorelines, excluding the efficacy and safety costs of about $10 million.[22] In addition to the expensive removal and disposal costs, in the cleanup activities in 1997, five volunteers died from fatigue and heart attacks and many of them complained about oil exposure.

On the other hand, bioremediation has several potential advantages over physical methods, such as being cheaper, safer, and more environmentally benign in terms of its

end products. From the result of the bioremediation experiment, the total disposal costs of the same amount of oil wastes in the Russian tanker oil spill were estimated at $10,192, saving $24,220,508. This could be accomplished with fewer people as well as less oil exposure. Furthermore, its end products could be reused for farms and landfills as long as the concentrations of toxic materials in the soil are lowered to the safety levels. In the Exxon tanker oil spill, the U.S. EPA conducted a field trial and tested products for bioremediation from ten different companies. They applied each product on the surface of rocks and compared them to non-bioremediated rocks. As the results, one of the products achieved successfully to turn the oil-blackened rocks to white within 2 to 3 weeks.[22] In addition to our EM1 experiment, the U.S. EPA's study showed the practicality and effectiveness of bioremediation in a field trial.

There were several limitations in the methods and findings. In the sampling activities, the small sample size might have limited the ability to detect any chemical contamination at the Anto shore. Peterson *et al* stated that different sampling size may lead to different conclusions on the effects of an oil spill even among studies at the same site and during the same period.[23] A different analyst between 1997 and 2004 may have brought a different result with the same analysis being conducted with the same analytical equipments. Both analysts may not have followed proper procedures. For instance, each analyst might have started improperly measuring the sampling time and recorded inaccurate values. In addition, analytical equipment may have already been contaminated by other chemicals before the analyst used it. For these reasons, we could not rely 100% on our results. In the further site investigation, some form of oil residue was found at the Anto shore, but the oil residue was not collected. The Energy Security

and Environment in Northeast Asia (ESENA) stated, "The Sea of Japan is polluted by all types of chemicals including crude oil from different tankers."[24] Thus, oil remaining in these locations was not determined whether or not it was from the Russian tanker. In the bioremediation experiment, it took about three months to decompose hydrocarbons at the suitable temperature (30°C~40°C) for microorganisms. However, in the cold weather at the Sea of Japan, the bioremediation might not be as effective time wise as physical removal methods. Also, bioremediation on the site could risk ecological side effects such as toxicity to marine life, although its side effects have not known yet.

Despite these limitations, inadequate cleanup instructions provided for the volunteers contributed to leaving oil residue on the site. Professor Tsujimoto suggested that people who know about removing oil in a marine environment should have given appropriate instructions for the volunteers. The inadequate instructions also caused oil exposures and even deaths among volunteers.[6] Therefore, in the case of the future physical removal activities or any other emergency response, adequate instructions need to be provided by experts. The most significant finding in this study was that bioremediation using EM1 was cheaper than the physical removal methods because EM1 did not require oil waste cleanup and disposal companies to dispose such a large amount of crude oil waste. Thus, EM1 could be utilized efficiently for decomposing crude oil as well as gasoline with less money and less exposure than the physical removal methods. Although the success of oil spill bioremediation depends on one's ability to establish and maintain conditions for effectiveness of microorganisms in different contaminated environments, this bioremediation experiment demonstrated a possible disposal method for future oil and gasoline spills. Unfortunately, bioremediation was not introduced as an

alternative cleanup method at the Anto shore in 1997 because a local government was afraid of its side effects on the marine environment. If EM1 could contribute to decomposing oil remaining in some locations of the Anto shore, it would have been a much more effective oil removal method.

In conclusion, adequate instructions for resolving different oil pollutions in a marine environment or other environmental disasters determine the effectiveness of emergency response. In the case of oil spills in a marine environment, providing adequate cleanup instructions for volunteers prevents adverse health effects as well as long-term oil residue. For this reason, safe and effective clean-up instructions and EM technology for future oil spills in a marine environment need to be developed. Further study should be done in order to clarify whether EM1 will function effectively on polluted sites in future oil or gasoline spills.

APPENDIX A. Outside, Inside, Control, Soil, and Pebbles Temperatures Between June 15 and September 14, 2004.

Date/Location	Outside/Avg	Inside	Control	Soil w/Oil	Pebbles w/Oil	Soil w/Gas
6/15/2004	26.8°C	35.0°C	38.8°C	39.2°C	42.0°C	38.2°C
6/16/2004	27.2°C	31.0°C	39.5°C	36.7°C	41.5°C	39.1°C
6/17/2004	26.6°C	31.0°C	33.8°C	33.4°C	34.3°C	33.5°C
6/18/2004	28.6°C	30.0°C	28.5°C	28.3°C	28.4°C	28.5°C
6/19/2004	22.7°C	27.4°C	27.2°C	26.7°C	26.8°C	27.1°C
6/20/2004	18.3°C	24.8°C	24.2°C	23.2°C	23.6°C	24.2°C
6/21/2004	21.1°C	24.7°C	23.9°C	23.8°C	24.0°C	23.9°C
6/22/2004	21.6°C	25.7°C	25.1°C	24.6°C	24.9°C	25.1°C
6/23/2004	22.4°C	26.6°C	25.8°C	25.4°C	25.5°C	25.8°C
6/24/2004	23.3°C	26.8°C	25.5°C	25.9°C	26.2°C	25.5°C
6/25/2004	22.7°C	27.1°C	26.4°C	25.3°C	26.2°C	26.4°C
6/26/2004	22.2°C	25.8°C	25.8°C	25.6°C	25.6°C	25.3°C
6/27/2004	20.5°C	29.1°C	32.9°C	30.7°C	32.1°C	32.8°C
6/28/2004	21.6°C	31.9°C	36.4°C	32.8°C	34.9°C	36.1°C
6/29/2004	20.5°C	33.4°C	35.7°C	35.4°C	36.2°C	35.7°C
6/30/2004	23.3°C	35.0°C	34.9°C	31.9°C	31.6°C	34.5°C
7/1/2004	23.9°C	40.0°C	38.1°C	35.3°C	39.2°C	38.2°C
7/2/2004	26.1°C	28.7°C	28.3°C	28.1°C	28.2°C	28.1°C
7/3/2004	21.6°C	27.6°C	27.1°C	26.9°C	26.9°C	27.1°C
7/4/2004	22.4°C	38.4°C	38.0°C	35.2°C	33.8°C	38.0°C
7/5/2004	25.5°C	28.3°C	27.6°C	27.6°C	27.5°C	27.6°C
7/6/2004	23.9°C	36.6°C	35.7°C	37.2°C	36.7°C	35.7°C
7/7/2004	22.4°C	37.7°C	38.6°C	34.2°C	35.3°C	35.6°C
7/8/2004	26.6°C	43.1°C	43.8°C	41.3°C	43.1°C	43.8°C
7/9/2004	22.7°C	25.8°C	25.7°C	25.8°C	25.7°C	25.7°C
7/10/2004	23.9°C	27.0°C	25.9°C	25.8°C	25.8°C	25.9°C
7/11/2004	25.5°C	27.6°C	27.6°C	27.5°C	27.4°C	27.6°C
7/12/2004	20.5°C	26.1°C	22.9°C	22.4°C	22.3°C	22.2°C
7/13/2004	18.9°C	23.8°C	23.6°C	23.7°C	23.6°C	23.7°C
7/14/2004	22.7°C	24.0°C	23.8°C	23.7°C	23.7°C	23.6°C
7/15/2004	22.7°C	25.9°C	26.4°C	26.4°C	25.2°C	26.9°C
7/16/2004	22.2°C	33.0°C	34.0°C	32.1°C	31.4°C	34.2°C
7/17/2004	25.0°C	30.2°C	32.4°C	32.5°C	32.6°C	32.4°C
7/18/2004	22.7°C	24.1°C	26.1°C	25.8°C	26.0°C	26.1°C
7/19/2004	23.3°C	26.3°C	25.9°C	25.4°C	25.2°C	25.9°C
7/20/2004	25.0°C	42.3°C	44.9°C	44.8°C	45.0°C	44.9°C
7/21/2004	26.1°C	27.5°C	26.5°C	27.2°C	27.1°C	26.5°C
7/22/2004	26.1°C	26.4°C	27.7°C	27.9°C	27.9°C	27.7°C
7/23/2004	23.9°C	24.7°C	24.7°C	24.6°C	24.9°C	24.7°C
7/24/2004	21.1°C	24.0°C	24.3°C	24.1°C	24.2°C	24.3°C
7/25/2004	21.6°C	26.5°C	27.3°C	27.1°C	27.4°C	27.3°C
7/26/2004	22.2°C	36.7°C	44.7°C	42.0°C	44.8°C	44.7°C
7/27/2004	21.1°C	26.5°C	26.3°C	26.1°C	26.2°C	26.3°C
7/28/2004	21.6°C	29.4°C	27.9°C	26.9°C	27.1°C	27.9°C
7/29/2004	23.9°C	32.5°C	32.3°C	31.7°C	31.6°C	32.3°C
7/30/2004	25.5°C	41.5°C	39.8°C	39.6°C	40.6°C	39.8°C
7/31/2004	26.6°C	32.1°C	32.2°C	32.0°C	32.4°C	32.2°C

APPENDIX A. Outside, Inside, Control, Soil, and Pebbles Temperatures Between June 15 and September 14, 2004.

8/1/2004	25.5°C	26.4°C	26.1°C	26.1°C	25.9°C	26.1°C
8/2/2004	27.2°C	42.3°C	43.3°C	43.1°C	43.4°C	43.5°C
8/3/2004	26.1°C	33.5°C	35.1°C	34.5°C	36.2°C	35.2°C
8/4/2004	26.6°C	42.5°C	46.0°C	45.5°C	45.7°C	46.1°C
8/5/2004	20.0°C	37.0°C	38.9°C	39.1°C	39.0°C	38.9°C
8/6/2004	18.3°C	37.1°C	37.0°C	37.1°C	37.2°C	37.0°C
8/7/2004	20.0°C	28.0°C	28.4°C	28.5°C	28.6°C	28.4°C
8/8/2004	23.9°C	30.2°C	30.2°C	30.1°C	31.1°C	30.2°C
8/9/2004	23.9°C	30.1°C	30.8°C	31.0°C	32.0°C	30.8°C
8/10/2004	25.5°C	30.2°C	29.5°C	30.2°C	29.8°C	29.5°C
8/11/2004	22.4°C	31.0°C	31.4°C	31.2°C	31.5°C	31.4°C
8/12/2004	22.4°C	28.6°C	29.1°C	29.0°C	29.5°C	29.1°C
8/13/2004	23.9°C	28.4°C	28.5°C	28.4°C	28.3°C	28.5°C
8/14/2004	22.7°C	28.9°C	28.9°C	28.7°C	28.9°C	28.9°C
8/15/2004	21.6°C	25.4°C	26.2°C	26.1°C	26.2°C	26.2°C
8/16/2004	20.0°C	33.4°C	31.0°C	30.9°C	31.1°C	31.0°C
8/17/2004	21.1°C	37.0°C	36.2°C	36.1°C	36.3°C	36.2°C
8/18/2004	22.7°C	35.0°C	34.4°C	34.1°C	34.5°C	34.4°C
8/19/2004	25.5°C	31.5°C	36.7°C	36.1°C	36.8°C	36.7°C
8/20/2004	28.3°C	31.5°C	31.6°C	30.3°C	31.5°C	31.6°C
8/21/2004	21.1°C	31.0°C	31.2°C	31.1°C	31.3°C	31.2°C
8/22/2004	20.0°C	28.9°C	29.1°C	28.9°C	29.2°C	29.1°C
8/23/2004	22.7°C	32.2°C	31.7°C	31.5°C	31.8°C	31.7°C
8/24/2004	22.2°C	33.1°C	32.4°C	32.5°C	32.7°C	32.4°C
8/25/2004	21.6°C	32.5°C	32.0°C	31.9°C	32.1°C	32.0°C
8/26/2004	21.6°C	31.1°C	31.2°C	31.0°C	31.4°C	31.2°C
8/27/2004	25.0°C	30.5°C	30.2°C	30.1°C	30.4°C	30.2°C
8/28/2004	27.2°C	36.9°C	42.0°C	42.1°C	42.4°C	42.0°C
8/29/2004	27.2°C	36.9°C	41.2°C	41.0°C	41.4°C	41.2°C
8/30/2004	26.6°C	34.0°C	35.0°C	35.1°C	35.3°C	35.0°C
8/31/2004	22.4°C	41.0°C	41.2°C	41.2°C	41.3°C	41.2°C
9/1/2004	22.7°C	40.5°C	40.4°C	40.4°C	40.7°C	40.4°C
9/2/2004	22.7°C	36.5°C	35.3°C	35.1°C	35.4°C	35.3°C
9/3/2004	22.7°C	40.5°C	40.3°C	40.2°C	40.4°C	40.3°C
9/4/2004	25.5°C	40.9°C	41.3°C	41.0°C	42.0°C	41.3°C
9/5/2004	21.1°C	22.1°C	21.9°C	22.0°C	22.3°C	21.9°C
9/6/2004	20.0°C	21.9°C	21.5°C	22.1°C	22.0°C	21.5°C
9/7/2004	21.1°C	22.5°C	22.9°C	22.8°C	22.9°C	22.9°C
9/8/2004	21.6°C	22.8°C	23.5°C	23.7°C	23.7°C	23.5°C
9/9/2004	23.9°C	24.5°C	28.7°C	28.9°C	28.9°C	28.6°C
9/10/2004	22.2°C	29.5°C	28.6°C	28.7°C	29.1°C	28.3°C
9/11/2004	19.4°C	24.5°C	25.6°C	25.6°C	25.9°C	25.3°C
9/12/2004	20.5°C	27.1°C	27.4°C	27.5°C	27.7°C	27.4°C
9/13/2004	23.9°C	28.4°C	29.1°C	29.4°C	29.6°C	29.2°C
9/14/2004	20.0°C	24.7°C	25.1°C	25.0°C	25.6°C	25.3°C
Avg. Temp.	22.37°C	31.19°C	31.68°C	31.29°C	35.57°C	31.27°C

Average outside temperatures in the Central Park, New York City were obtained from wunderground.com

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Exhibit F

Material Safety Data Sheet

EM HYDRO SOAP

Date Last revised: 2004/2/16

1. Identification OF The Substance And Of The Company

Chemical Name & Synonyms:
Mixture
Trade Name & Synonyms:
EM HYDRO SOAP
Chemical Family:
N/A
Formula:
Mixture
Manufacturer:
TWO-M CHEMICAL CO.,LTD
Manufacturer's Phone:
++81-(0)729-88-0771
Manufacturer's Address:
Higashioosakasi Nunoichichou 1-6-9 OSAKA JAPAN

Hazard Rating:

Health:	1	4= EXTREME
Flammability:	1	3= HIGH
Reactivity:	0	2= MODERATE
		1= SLIGHT

2. OSHA Hazardous Components

Principal Hazardous Components:

Chemical Name	CAS No.	Composition Range
Petroleum hydrocarbon solvent	8030-30-6	28.0-33.0%
Linear alkyl benzene sulfonate	68081-81-2	1.0-6.0%

3. Effects Of Overexposure

Acute Effects:

Ingestion:
May cause transient gastrointestinal irritation.

Eye:
Contact may cause mild, transient irritation.

Skin:
Mild Skin irritant.

Inhalation:
Heavy exposure to dust may cause transient respiratory tract irritation.

Prolonged / Repeated Exposure Effects:

Ingestion:
Oral ingestion may result in gastrointestinal irritation with nausea, vomiting or diarrhea.

Eye:
May result in transient, superficial effects similar to those produced by mild toilet soap.

Skin:
May result in transient, superficial effects similar to those produced by mild toilet soap

Inhalation:
No known applicable information.

Signs and Symptoms of Overexposure:
No known applicable information.

Medical Conditions Aggravated by Exposure:
No known applicable information.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or exper treview of the product. Please reffer toxicological information.

4. First Aid Measures

Eye:
Flush eyes immediately with large amounts of water for 15 minutes lifting the eyelids occasionally. Get medical attention.

Skin:
Remove contaminated clothing and wash with plenty of soap and water.

Inhalation:
Leave dusty area. In rare cases a respiratory reaction can occur which may include tightness of chest and difficulty breathing. If this occurs, seek medical attention immediately.

ingestion:
Give large quantities of water then several grasses of milk induce voming. Get medical attention immediately.

5. Fire Fighting Measures

Flash Point (Test Method):
over 65°C (TAG)

Flammable Limits:
N/K

Extinguishing Media:
CO_2, foam, powder.

Special Fire Fighting Pricedures:
Use air supplied breathing equipment for enclosed areas.
Cool exposed containers with water spray.
Avoid breathing vapor fumes.

Unusual Fire Hazards:
N/K

Explosive Limits:
LEL; 0.6
UEL; 6.5

Stability:
Stable.

Incompatibility (Materials to Avoid):
N/K

Hazardous Decomposition / By Products:
N/K

Hazardous Polymerization:
Will Not Occur.

6. Accidental Release Measures

Personal Precautions:
N/A

Environmental Precautions:
Disposal is to be performed in compliance with all federal, state and local regulations.

Steps To Be Taken in Case Material is Released or Spilled:
Use water spray or dilute and / or wash away spills to avoid exposure and to protect persons working to stop / repair leak.

7. Handling And Storage

Precautions To Be Taken in Handling and Storing:
Store in a cool, dry, well ventilated area.

Other Precautions:
N/K

8. Exposure Controls / Personal Protection

Eye Protection:
Chemical goggles when respirator does not provide eye protection.

Respiratory Protection (Specific Type):
Supplied air respirators should be worn if large quantities of mists or vapors are generated or prolonged exposure possible.

Protective Clothing:
Gloves, long-sleeved shirt, and slacks.

Ventilation:
Whenever possible, engineering controls should be used to minimaze the need for persona protective equipment.

Other:
Eyewash facilities and safety should be available.

9. Physical And Chemical Properties

Boiling Point (°C):
150~200

Vapor Pressure (mm Hg.):
<1 mm Hg @ 25°C

Vapor Density (Air=1):
4~5

Solubility In Water:
It is hard to melt into water.

Specific Gravity (H_2O=1):
0.85~0.95

Percentage Volatile by Volume (%):
38

Evaporation Rate (Butyl Acetate=1):
None

pH:
5.5~6.0

Appearance & Odor:
Transparent thin yellow, very mild hydrocarbon odor.

10. Stability And Reactivity

Possible Hazardous Reactions / Conditions / By Products:
Stable on the usual handling conditions.

Conditions to Avoid:
Avoid heat, open flames, oxidizing materials, and reducing materials.

Materials to Avoid:
Strong oxidizing agents and strong reducing agents.

Hazardous Decomposition Products:
Fumes, smoke, carbon monoxide, and unidentified organics may be formed during combustion.

Other Recommendation:
None.

Stability:
Stable.

Hazardous Polymerization:
Will not occur.

11. Toxicological Information

Special Hazard Information on Components:
No known applicable infourmation.

12. Ecological Information

Environmental Fate and Distribution:
Complete information is not yet available.
Environmental Effects:
Complete information is not yet available.
Fate and Effects in Waste Water Treatment Plants:
Complete information is not yet available.

13. Disposal Considerations

Waste disposal method:
Disposal is to be performed in compliance with all federal, state / provincial and local regulations.

14. Transport Information

DOT Classification:
No regulated.

15. Regulatory Information

16. Other Information

* N/A. - Not Applicable * N/K. - Not Known

The submission of this MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health.

The information contained herein has been compiled from sources considered by TWO-M CHEMICAL CO.,LTD to be dependable and is accurate to the best of Company's knowledge.The information relates to the specific material designated herein, and does not relate to the use in combination with any other material or any other process. TWO-M CHEMICAL CO.,LTD assumed no responsibility for injury to the recipient or third persons, for any damage to any property resulting from misuse of controlled product.

Exhibit G

The Spanish Group LLC
1 Park Plaza, Suite 600
Irvine, CA 92614
United States of America
https://www.thespanishgroup.org

Certified Translation

Furnished on the **06th** day of **May, 2022**

I, **Hyunji Lee** ( ), hereby certify that I translated the attached document from Korean into English or English into Korean and that this translation is an accurate and faithful translation of the original document. Furthermore, I certify that I am proficient in translating both Korean and English and that I hold the capacity to render and certify the validity of such a translation. This document has not been translated for a family member, friend, or business associate.

I, Salvador G. Ordorica, as a Quality Assurance Agent of The Spanish Group LLC, hereby attest that the aforementioned translator is a proficient Korean-English translator. Accordingly, as an authorized representative of The Spanish Group, I certify that this document has been proofread and that the attached document is a faithful and authentic translation of its original.

Respectfully,

CERTIFIED The Spanish Group TRANSLATION

Salvador G. Ordorica
The Spanish Group LLC
(ATA #267262)

EM SAVE THE WORLD

Filter's Technology is the Life Span!

Check Out the Excellent Purification Capability and Long Life of EM Filters You Can't Match

EM filter after 2 year and 7 months use
Despite it was full of lint to the point where wondered if it will work,

Solvent purified very clean using EM filter before one load end

Replacing with a new filter
(EM filter optimized for EM setting)

Long-life EM filter that keeps solvent clean all the time

Do you know? The life span of the filter for No Cooking is "the filter paper and the high-quality carbon combination"!!!

It is a different level of technology manufactured based on the long history of 70 years and accumulated knowhows!!!

Please experience and confirm!!!

- **First, the filter paper is a new high-strength material and manufactured in the best optimized density for alternative solvents.**
  Removes dirt most efficiently, so filter pressure rarely increases, solvent flow is great.
  No filter burst accident caused by the increase of filter housing pressure.
  Resistant to water, so there is no problem in using moisture during pretreatment.
- **Second, manufactured in a structure where EM can be safely settled, maximizes EM-specific purification performance and antioxidant activities.**
  Decomposes dirt easily through EM activities, sludge does not form easily
- **Third, manufactured with the optimal mix of high-quality charcoal-based and coal-based carbon.**
  Perfectly filters out contaminants or stained pigments etc. without cooking, so cleanness of the solvent is continuously maintained.

NYM

New York Machinery Inc
609 Chancellor Ave, Irvington, NJ 07111
TEL: (973) 375-1111 Toll Free: (855) 600-3636
FAX: (973) 375-0200
www.nymusa.com info@nymusa.com

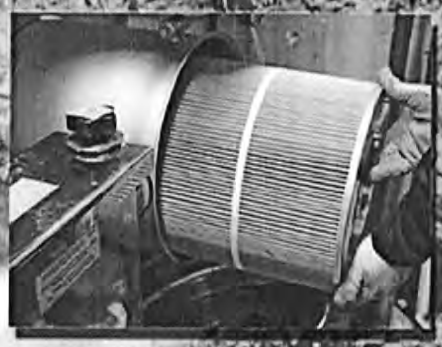
EM
SAVE THE WORLD

필터는 수명이 곧 기술입니다.!

따라 올 수 없는 EM필터의 탁월한 정화 능력과 긴 수명을 직접 확인 하세요.

2년 7개월된 EM 필터,
작동이 될까 싶을 정도로
린트가 가득 차있는 상태였지만,

한 로드가 끝나기 전
EM 필터를 거쳐 아주
깨끗하게 정화된 솔벤트



새 필터로 교체하는 모습
(EM정착에 최적화된 EM 필터)

항상 솔벤트를 청결하게 유지해주는 긴 수명의 이엠 필터

아시나요? 노쿡킹용 필터의 생명은 "필터의 **여과지**와 고품질의 **카본 배합**" 이란걸!!
70년간의 긴 역사와 노하우를 바탕으로 제작 되어 타 필터와는 차원이 다릅니다!!!
경험해 보시고 확인해 보시죠!!!

- 첫째 필터의 여과지는 고강도의 신소재로 대체 솔벤트에 최적화된 밀도로 만들었습니다.
  때를 가장 효율적으로 제거할수 있어어 필터압이 잘 상승하지 않고, 솔벤트의 플로우가
  아주 좋습니다.
  필터 하우징의 압력상승으로 필터가 터지는 사고가 없습니다.
  물에 강함으로 전처리시 수분을 사용해도 문제가 없습니다.
- 둘째 이엠이 안전하게 정착할 수 있는구조로 제작되어 이엠 특유의 정화활동과 황산화활동을
  극대화 합니다.
  이엠의 활동으로 때를 잘 분해하여 슬러지가 생기지 않습니다.
- 셋째 고품질의 목탄계 와 석탄계의 카본을 최적의 배합으로 제작 하였습니다.
  쿡킹을 하지 않아도 필터가 오염물질 또는 이염된 색소등을 완벽하게 걸러주기 때문에
  솔벤트의 청결이 지속적으로 유지됩니다.

NYM
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www.nymusa.com info@nymusa.com

Exhibit H

The Spanish Group LLC
1 Park Plaza, Suite 600
Irvine, CA 92614
United States of America
https://www.thespanishgroup.org

Certified Translation

Furnished on the **4th** day of **May, 2022**

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Respectfully,

CERTIFIED The Spanish Group TRANSLATION

Salvador G. Ordorica
The Spanish Group LLC
(ATA #267262)

ACKNOWLEDGMENT

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State of California
County of ORANGE.

On , May 4th, 2022 before me, NICOLE A. RENNA NOTARY PUBLIC.
(insert name and title of the officer)

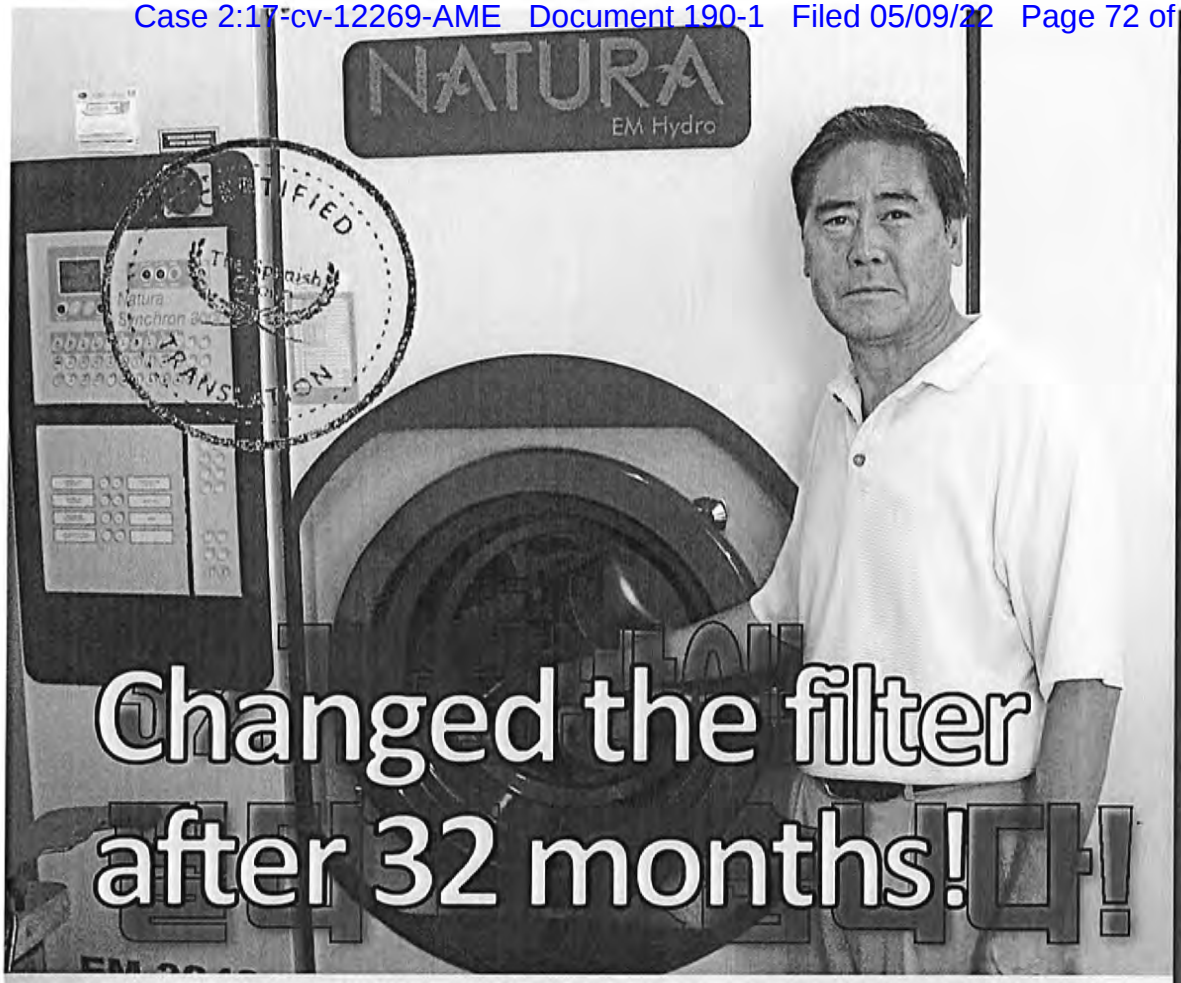
personally appeared Salvador G. Ordorica,
who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

NICOLE A. RENNA
COMMISSION # 2302767
Notary Public - California
ORANGE COUNTY
My Comm. Expires Aug. 24, 2023

WITNESS my hand and official seal.

Signature _____ (Notary Public Seal)



Changed the filter after 32 months!!!

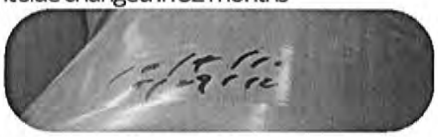
EM 기술이
I knew EM technology was good, but really, I did not know the filter would last almost 3 years!
정말 놀랍습니다!
It is just amazing!

President Won Gee Lee
Hallelujah Cleaner
North Brunswick, NJ
732-422-4992

Amazing Efficacy of EM Soap and Filter!!
Experience It Yourself!!

Number of accumulated loads after filter change 3996

Light side changed in 32 months



Dark side changed in 20 months

NYM UNISEC

609 Chancellor Ave., Irvington,NJ 07111
E-Mail: nymachinery@gmail.com

Tel: 973-375-1111
Fax: 973-375-0200
www.nymusa.com
www.unisecusa.com

32개월만에 필터 갈았습니다!

EM 기술이
좋은줄 알았지만
필터를 3년 가까이
쓸 줄은 정말 몰랐네요!
놀랄 따름입니다!

이원기 사장님
할렐루야 클리너
North Brunswick, NJ
732-422-4992

EM 비누와 필터의 놀라운 효능!!
직접 경험해 보세요!!

필터 교환 후 누적 로드 수 3996회

라이트 사이드 32개월만에 교체

다크 사이드 20개월만에 교체

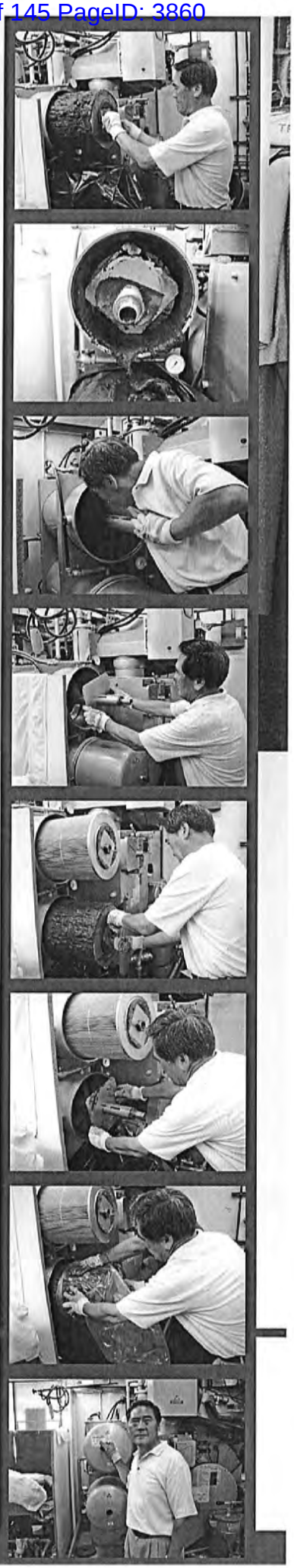


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Exhibit I

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1 Park Plaza, Suite 600
Irvine, CA 92614
United States of America
https://www.thespanishgroup.org

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Salvador G. Ordorica
The Spanish Group LLC
(ATA #267262)

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State of California
County of ORANGE.

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(insert name and title of the officer)

personally appeared Salvador G. Ordorica,
who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

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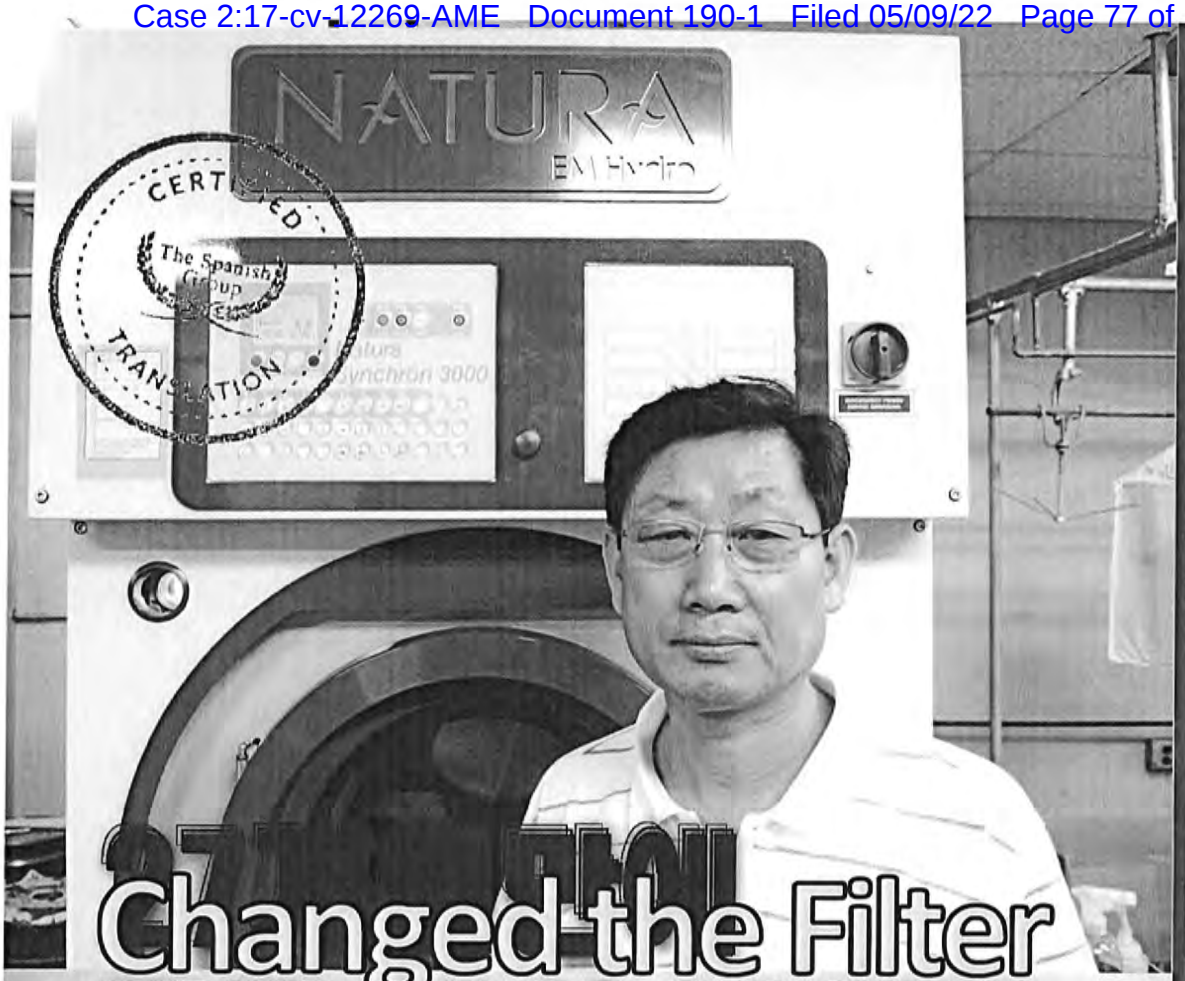
COMMISSION # 2302767
Notary Public - California
ORANGE COUNTY
My Comm. Expires Aug. 24, 2023

WITNESS my hand and official seal.

Signature _____ (Notary Public Seal)



Changed the Filter after 27 Months!!

I knew EM technology was good, but really, I did not know the filter would last more than 2 years!

In one word, it is wonderful!

Total Loads Number Processed with Filter 2724

President Dong Gwan Kim
Silver Hanger Cleaner
Springfield, NJ
973-379-6554

Amazing Efficacy of EM Soap and Filter!!
Experience It Yourself!!

NYM UNISEC

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Fax: 973-375-0200
www.nymusa.com
www.unisecusa.com

27개월만에 필터 갈았습니다!

EM 기술이 좋은줄 알았지만 필터를 2년 넘게 쓸 줄은 정말 몰랐습니다! 한 마디로 원더풀입니다!

김동관 사장님
실버 행어 클리너
Springfield, NJ
973-379-6554

필터로 처리한 로드 수 총 2724회

**EM 비누와 필터의 놀라운 효능!!
직접 경험해 보세요!!**

NYM UNISEC

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E-Mail: nymachinery@gmail.com

**Tel: 973-375-1111
Fax: 973-375-0200
www.nymusa.com
www.unisecusa.com**

Exhibit J

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Irvine, CA 92614
United States of America
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Salvador G. Ordorica
The Spanish Group LLC
(ATA #267262)

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NICOLE A. RENNA
COMMISSION # 2302767
Notary Public - California
ORANGE COUNTY
My Comm. Expires Aug. 24, 2023

WITNESS my hand and official seal.

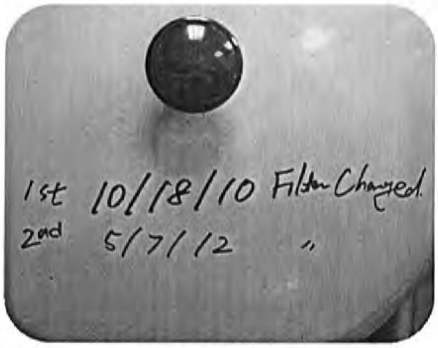
Signature _____ (Notary Public Seal)

Changed the filter after 20 months!!

EM 기술 덕분에
Thanks to EM technology, we could
필터를 2년 가까이 사용했습니다!
use the filter almost 2 years!
그저 놀라울 따름입니다!
It is just amazing!

President Jong Chul Bong
New French Cleaner
Old Bridge, NJ
732-521-8228

Amazing efficacy of EM soap and filter!!
Expererience it yourself!!



Filter change date written on filter housing

NYM UNISEC

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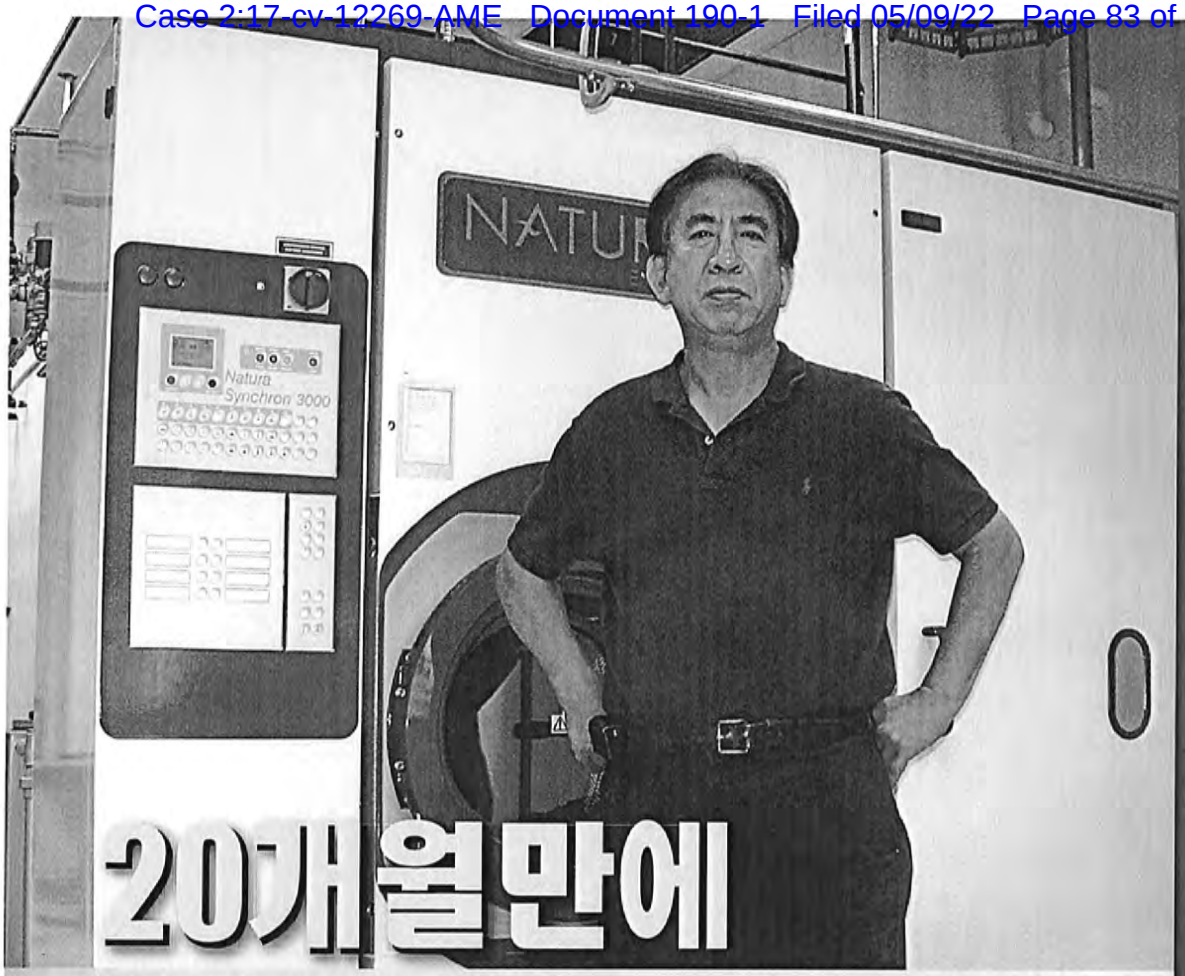
Tel: 973-375-1111
Fax: 973-375-0200
www.nymusa.com
www.unisecusa.com



20개월만에 필터 갈았습니다!

EM 기술 덕분에
필터를 2년 가까이 썼습니다!
그저 놀라울 따름입니다!

봉종철 사장님
뉴 프렌치 클리너
Old Bridge, NJ
732-521-8228

필터 하우징에 표시된 필터교환날짜

EM 비누와 필터의 놀라운 효능!!
직접 경험해 보세요!!

NYM UNISEC

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Tel: 973-375-1111
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www.nymusa.com
www.unisecusa.com

Exhibit K

The Spanish Group LLC
1 Park Plaza, Suite 600
Irvine, CA 92614
United States of America
https://www.thespanishgroup.org

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The Spanish Group LLC
(ATA #267262)

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State of California
County of ORANGE.

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NICOLE A. RENNA
COMMISSION # 2302767
Notary Public - California
ORANGE COUNTY
My Comm. Expires Aug. 24, 2023

WITNESS my hand and official seal.

Signature _____ (Notary Public Seal)

Changed the filter after 22 months!!

Thanks to EM technology, we could use the filter almost 2 years
It is just amazing!

President Hak Chul Kim
Rockaway Cleaner
Rockaway, NJ
973-586-1907

Computer screen shows a total of 5767 loads had been treated before filter change

Amazing efficacy of EM soap and filter!!
Experience it yourself!!

NYM UNISEC

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www.nymusa.com
www.unisecusa.com

22개월만에 필터 갈았습니다!

EM 기술 덕분에 필터를 2년 가깝게 썼네요! 그저 놀라울 따름입니다!

김학철 사장님
락커웨이 클리너
Rockaway, NJ
973-586-1907

컴퓨터 스크린이 필터를 교환하기까지
총 5767 로드를 처리했음을 보여준다

EM 비누와 필터의 놀라운 효능!!
직접 경험해 보세요!!

NYM UNISEC

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Exhibit L

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The Spanish Group LLC
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State of California
County of ORANGE.

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COMMISSION # 2302767
Notary Public - California
ORANGE COUNTY
My Comm. Expires Aug. 24, 2023

WITNESS my hand and official seal.

Signature _____ (Notary Public Seal)

Changed the filter after 19 months!!

EM 기술 덕분에 필터 한 세트를
19개월이나 사용했습니다!
그저 놀라울 따름입니다!!

Thanks to EM technology, we have used one set filter for 19 months!
It is just amazing!!

President Soon Keun Yoon
First Professional Cleaner
White Plains, NY
914-946-7859

Dry cleaning machine computer screen shows a total of 1641 loads had been treated after filter change.

Amazing efficacy of EM soap and filter!!
Experience it yourself!!

NYM

UNISEC
NATURA

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www.unisecusa.com

19개월만에 필터 갈았습니다!

EM 기술 덕분에 필터 한 세트를 19개월이나 사용했습니다! 그저 놀라울 따름입니다!

윤순근 사장님
퍼스트 프로페셔널 클리너
White Plains, NY
914-946-7859

EM 비누와 필터의 놀라운 효능!! 직접 경험해 보세요!!

드라이클리닝 머쉰 컴퓨터 화면에
필터 교환 후 총 1641 로드를
처리했다고 표시돼 있다.

NYM

UNISEC
NATURA

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Exhibit M

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State of California
County of ORANGE.

On , May 4th, 2022 before me, NICOLE A. RENNA NOTARY PUBLIC.
(insert name and title of the officer)

personally appeared Salvador G. Ordorica,
who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NICOLE A. RENNA
COMMISSION # 2302767
Notary Public - California
ORANGE COUNTY
My Comm. Expires Aug. 24, 2023

Signature _____ (Notary Public Seal)

Changed the filter after 26 months!!

EM 기술 덕분에 필터 한 세트를
26개월이나 사용했습니다!
그저 놀라울 따름입니다!!

Thanks to EM technology, we have used one set filter for 26 months!

It is just amazing!!

President Young Soh
New Elite Cleaner
Toms River, NJ
732-270-1560

New elite cleaner changed its filter in 26 months after the machine was installed.

Amazing efficacy of EM soap and filter!!
Experience it yourself!!

NYM

UNISEC
NATURA

609 Chancellor Ave., Irvington,NJ 07111
E-Mail: nymachinery@gmail.com

Tel: 973-375-1111
Fax: 973-375-0200
www.nymusa.com
www.unisecusa.com

26개월만에 필터 갈았습니다!

EM 기술 덕분에 필터 한 세트를 26개월이나 사용했습니다! 그저 놀라울 따름입니다!

Young Soh 사장님
뉴 엘리트 클리너
Toms River, NJ
732-270-1560

뉴 엘리트 클리너는 2011년 1월
기계를 설치한 후 26개월만에
처음으로 필터를 갈았다.

EM 비누와 필터의 놀라운 효능!!
직접 경험해 보세요!!

NYM

UNISEC
NATURA

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E-Mail: nymachinery@gmail.com

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Fax: 973-375-0200
www.nymusa.com
www.unisecusa.com

Exhibit N

The Spanish Group LLC
1 Park Plaza, Suite 600
Irvine, CA 92614
United States of America
https://www.thespanishgroup.org

Certified Translation

Furnished on the **4th** day of **May, 2022**

I, **Hyunji Lee** ( ), hereby certify that I translated the attached documents from Korean into English or English into Korean and that these translations are accurate and faithful translations of the original documents. Furthermore, I certify that I am proficient in translating both Korean and English and that I hold the capacity to render and certify the validity of such translations. These documents have not been translated for a family member, friend, or business associate.

I, Salvador G. Ordorica, as a Quality Assurance Agent of The Spanish Group LLC, hereby attest that the aforementioned translator is a proficient Korean-English translator. Accordingly, as an authorized representative of The Spanish Group, I certify that these documents have been proofread and that the attached documents are faithful and authentic translations of their originals.

Respectfully,

CERTIFIED The Spanish Group TRANSLATION

Salvador G. Ordorica
The Spanish Group LLC
(ATA #267262)

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of ORANGE.

On, May 4th, 2022 before me, NICOLE A. RENNA NOTARY PUBLIC.
(insert name and title of the officer)

personally appeared Salvador G. Ordorica,
who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

NICOLE A. RENNA
COMMISSION # 2302767
Notary Public - California
ORANGE COUNTY
My Comm. Expires Aug. 24, 2023

WITNESS my hand and official seal.

Signature _____ (Notary Public Seal)

Thanks to EM Technology

NEW

NEW

Hydrocarbon Soap | Cartridge Filter | NINJA WET wetclean soap | JOE-WET wetclean conditioner

Changed the filter after 24 months!

Thanks to EM technology, we installed the machine in July two years ago, and changed the filter for the first time in 24 months. It is just amazing!

CERTIFIED The Spanish Group TRANSLATION

President John Kim
Green Haven Cleaner
New Rochelle, NY
718-564-5637

It shows a total of 1693 loads had been processed after the machine is installed.

Amazing efficacy of EM soap and filter!! Experience it yourself!!

NYM

UNISEC NATURA

609 Chancellor Ave., Irvington,NJ 07111
E-Mail: nymachinery@gmail.com

Tel: 973-375-1111
Fax: 973-375-0200
www.nymusa.com
www.unisecusa.com

EM 기술 덕분에

NEW

NEW

하이드로카본 비누

카트리지 필터

닌자 웨트 웨트클린 비누

죠-웨트 웨트클린 컨디셔너

24개월만에 필터 갈았습니다!

EM 기술 덕분에 제작년 7월에 기계놓고 24개월만에 처음 필터를 갈았습니다. 그저 놀라울 따름입니다!

John Kim 사장님
그린 헤이븐 클리너
New Rochelle, NY
718-564-5637

기계 설치 후 그동안
총 1693로드를 처리했다고 표시돼 있다.

EM 비누와 필터의 놀라운 효능!!
직접 경험해 보세요!!

NYM

UNISEC
NATURA

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E-Mail: nymachinery@gmail.com

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Fax: 973-375-0200
www.nymusa.com
www.unisecusa.com

Exhibit O

The Spanish Group LLC
1 Park Plaza, Suite 600
Irvine, CA 92614
United States of America
https://www.thespanishgroup.org

Certified Translation

Furnished on the **4th** day of **May, 2022**

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Respectfully,

CERTIFIED The Spanish Group TRANSLATION

Salvador G. Ordorica
The Spanish Group LLC
(ATA #267262)

ACKNOWLEDGMENT

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State of California
County of ORANGE.

On , May 4th, 2022 before me, NICOLE A. RENNA NOTARY PUBLIC.
(insert name and title of the officer)

personally appeared Salvador G. Ordorica,
who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

NICOLE A. RENNA
COMMISSION # 2302767
Notary Public - California
ORANGE COUNTY
My Comm. Expires Aug. 24, 2023

WITNESS my hand and official seal.

Signature _____ (Notary Public Seal)

NATURA
EM-Hydro

Changed the filter after 24 months!

Thanks to EM technology, we installed the machine in December 2011 and changed the filter first last December.
It is just amazing!!

President Ms. Ahn
Rye Cleaner
Philadelphia, PA
215-742-3885

After the machine was installed on December 2011, a total of 684 loads had been processed.

Amazing efficacy of EM soap and filter!!
Experience it yourself!!

NYM

UNISEC
NATURA

609 Chancellor Ave., Irvington,NJ 07111
E-Mail: nymachinery@gmail.com

Tel: 973-375-1111
Fax: 973-375-0200
www.nymusa.com
www.unisecusa.com

Ms. 안 사장님(왼쪽)과 플랜트 매니저

24개월만에 필터 갈았습니다!

EM 기술 덕분에 2011년 12월 기계 놓고
지난 12월에 처음 필터를 갈았습니다.
정말 대단합니다!!

Ms. 안 사장님
라이 클리너
Philadelphia, PA
215-742-3885

EM 비누와 필터의 놀라운 효능!!
직접 경험해 보세요!!

2011년 12월에 기계 설치 후
총 684 로드를 처리했다.

NYM
UNISEC
NATURA

609 Chancellor Ave., Irvington,NJ 07111
E-Mail: nymachinery@gmail.com

Tel: 973-375-1111
Fax: 973-375-0200
www.nymusa.com
www.unisecusa.com

Exhibit P

PURITAN®

The Confidence Cartridge™

PURITAN offers a range of large format filters to meet your needs with superior design, materials and construction that deliver better value.

Large Format Cartridges

An important success factor for any cleaning business is the ability to consistently satisfy customers by returning garments that look as fresh and clean as new. Good filtration is essential to achieving that objective and avoiding the negative effects of graying and redeposition of soil that can lead to unhappy customers. That's why PURITAN filter cartridges are designed and constructed to trap and hold substantially more insoluble soil than competing brands.

Differences in cleaning machine configurations, cleaning processes, solvents, and the work processed means that there are differing requirements for contaminant removal from one cleaning system to another. So whatever your requirements, there is a PURITAN model especially designed to meet your needs.

The PURITAN Difference

- PURITAN large format cartridges provide up to one third more usable surface area than other brands. With more premium filter paper and precise, deep pleating, PURITAN's extra surface area provides more effective and efficient insoluble soil removal.
- For superior removal of dye and other color impurities, only the best activated carbon granules are used. The core is vibratic packed to full capacity to ensure no settling occurs.
- In the PURITAN Adsorptive model, activated clay supplements the activated carbon in a uniform blend that ensures consistent removal of contaminants.
- The unique two-handle design does not puncture the filter shell, avoiding the soil bypass that occurs in other brands, and making for easier handling during filter changes.
- The paper ends are sealed in a bed of adhesive and bonded to the endplates while the side seam consists of a full pleat overlap that is interlocked and sealed with adhesive to prevent soil bypass and ensure structural integrity.
- Every case of PURITAN large format cartridges includes new felt gaskets to ensure proper sealing.

PURITAN Large Format Products

• LF–Balanced Filter Life & Dye Control for Most Systems

The LF is the standard large format model filter cartridge. It features a core of activated carbon that is sized to balance the dirt-holding capacity of the filter paper to the dye removal capacity of the carbon core, in a ratio that is right for most systems using distillation to help remove solvent soluble contaminants.

• Dye Eater–For Maximum Control of Dye Contaminants

The premium Dye Eater model features the same capacity for insoluble soils as the LF model, but uses a much larger core of activated carbon for extra dye removal capability and longer life.

• Adsorptive–For Oily Contaminant Control in Systems Without Distillation

The Adsorptive model uses a core with two adsorptive materials. Activated clay is uniformly blended with activated carbon to provide some removal of oily contaminants in systems that lack distillation capability.

• All Clay–For Oily Contaminant & Moisture Control in Systems Where Carbon is Not Desired

The All-Clay model uses a core with 100% activated clay for removal of oily contaminants and unwanted moisture in systems that lack distillation capability.

CARTRIDGES

Instructions for maintaining solvent quality with PURITAN® Large Format Cartridges

When to Change PURITAN Large Format Cartridges

Solvent flow rate is the best method for determining when to change cartridges. Replace cartridges when fill time through the filter exceeds 1.5 minutes to reach working level.

Unfortunately, many machines fill to working level directly from the tank to the wheel, bypassing the filter. In order to accurately check fill time throughout the life of the cartridges, the machine must be reprogrammed to fill to level through the filter. Filling in this manner also eliminates the risk of allowing any contaminants that may be in the base tank to be deposited on the garments in the wheel.

If reprogramming is not possible, then change cartridges either when the pressure exceeds 20 psi or when solvent color cannot be maintained to an acceptable level.

How to Change Spent PURITAN Cartridges

1. Follow filter system manufacturer's instructions for solvent recovery process from spent cartridges. Allow cartridges to drain at least 24 hours. *CAUTION: Check solvent storage capacity of your drycleaning system before draining filters.*
2. Before removing cartridges from their housings, consult solvent SDS for safe handling information.
3. Remove used cartridges and felt gaskets from housing or solvent recovery unit without spilling or dripping solvent. Handle in accordance with all federal, state and local regulations governing disposal of hazardous waste.*
4. Install new PURITAN Large Format Cartridges according to detailed instructions enclosed with the felt gaskets. *IMPORTANT! Read gasket instructions before installing cartridges. Be sure that all felt gaskets are in place to prevent soil bypass and all housing gaskets are properly fitted to prevent leakage.*
5. Reinstall cover(s) and check all valves for proper setting. Close all drain valves and air vents.
6. Fill filter and circulate, bleeding air vent lines until filter is liquid full.
7. Circulate solvent through the filter for twenty minutes or until sight glass clears, whichever occurs last. When using the PURITAN Adsorptive Cartridge, it is important not to add detergent to the system until after this step, in order to achieve maximum filter effectiveness.
8. Clean 2-3 dark loads before cleaning a light or white load.

How to Obtain Maximum Cartridge Life

1. Follow filter manufacturer's operating instructions.
2. Do not exceed an operating pressure of 20 psi as cartridges can be damaged by pressures over 20 psi.
3. If cartridges are changed based on lbs. cleaned, change when approximately 1,250 lbs. have been cleaned per split cartridge.
4. Maintain solvent temperature between 70°F and 90°F.
5. Vent the air from all filter housings daily. (Cover air bleed vent with rag while slightly opening to prevent spilling or dripping of solvent while venting air. Vent until solvent starts to drip from air bleed vent, then close vent tightly and dryclean rag.)

Use of Detergent or Additives

Charge System: To maintain a 1.3% detergent charge, add 17 oz. detergent per 10 gallons of new, distilled, or reclaimed solvent added to work system. If PURITAN Adsorptive Cartridges are installed, add an additional 4 oz. of detergent per new cartridge.

Load Process System: To condition the solvent, add 1 oz. detergent per 10 gallons of new, distilled, or reclaimed solvent added to work system. If PURITAN Adsorptive Cartridges are installed, add an additional 4 oz. of detergent per new cartridge.

How to Order PURITAN Large Format Cartridges

PURITAN Large Format Cartridges and gaskets are sold by authorized Street's distributors everywhere. Order PURITAN cartridges in cases of four.

For professional drycleaning use only.

**Spent cartridges containing solvents classified as hazardous should be handled as hazardous waste and disposed of in accordance with applicable federal, state and local regulations governing waste disposal.*

Advancing the Technology of Clean™

STREET'S®
www.4streets.com
(800) 4-STREET

Exhibit Q

The Spanish Group LLC
1 Park Plaza, Suite 600
Irvine, CA 92614
United States of America
https://www.thespanishgroup.org

Certified Translation

Furnished on the **3rd** day of **May, 2022**

I, **Ha Vu** ( ), hereby certify that I translated the attached documents from Japanese into English or English into Japanese and that these translations are accurate and faithful translations of the original documents. Furthermore, I certify that I am proficient in translating both Japanese and English and that I hold the capacity to render and certify the validity of such translations. These documents have not been translated for a family member, friend, or business associate.

I, Salvador G. Ordorica, as a Quality Assurance Agent of The Spanish Group LLC, hereby attest that the aforementioned translator is a proficient Japanese-English translator. Accordingly, as an authorized representative of The Spanish Group, I certify that these documents have been proofread and that the attached documents are faithful and authentic translations of their originals.

Respectfully,

CERTIFIED The Spanish Group TRANSLATION

Salvador G. Ordorica
The Spanish Group LLC
(ATA #267262)

The Spanish Group LLC verifies the credentials and/or competency of its translators and the present certification, as well as any attached pages, serves to affirm that the document(s) enumerated above has/have been translated as accurately as possible from its/their original(s). The Spanish Group LLC does not attest that the original document(s) is/are accurate, legitimate, or has/have not been falsified. Through having accepted the terms and conditions set forth in order to contract The Spanish Group LLC's services, and/or through presenting this certificate, the client releases, waives, discharges and relinquishes the right to present any legal claim(s) against The Spanish Group LLC. Consequently, The Spanish Group LLC cannot be held liable for any loss or damage suffered by the Client(s) or any other party either during, after, or arising from the use of The Spanish Group LLC's services.

Jun Chung <kcm.john05@gmail.com
Tue, Dec. 5, 2017 at 11:54 AM

Fw：イツミ製作所です。(Itsumi Manufacturing Co.)
sammy Ahn <sammyitsumi@yahoo.com>
Reply-To： sammy Ahn <sammyitsumi@yahoo.com>
To：Chung <kcm.john4@gmail.com>

From：T Shimoji
Sent：Friday、March 24 2017 2:08 PM
To：syh@itsumi.co.jp
Cc： "Q&A"
Subject：Re Fwd：イツミ製作所です。(Itsumi Manufacturing Co.)

Itsumi Manufacturing Co.

Thank you very much for your kind attention.
Regarding your inquiry about the cartridge filter containing EM, we do not have any related organization that manufactures such products or parts.
It may be possible to treat the carbon used in the filter material with EM, but product development is outside of our area of expertise, so if your company wishes, we would be happy to discuss technical aspects in the form of joint development.
On the other hand, we have a local subsidiary in the U.S. (EMROUSA), so your company's business partner may contact us directly. However, we would appreciate your understanding that EMROUSA has not yet started work in this field, so we will consider this matter in the same way.

EMROUSA
(Quoted text hidden)
(Quoted text hidden)

Gmail John Chung <kcm.john05@gmail.com>

Fw: イツミ製作所です。

sammy Ahn <sammyitsumi@yahoo.com> Tue, Dec 5, 2017 at 11:54 AM
Reply-To: sammy Ahn <sammyitsumi@yahoo.com>
To: Chung <kcm.john4@gmail.com>

From: T Shimoji
Sent: Friday, March 24, 2017 2:08 PM
To: syh@itsumi.co.jp
Cc: "Q&A"
Subject: Re: Fwd: イツミ製作所です。

イツミ製作所

お世話になります。
ご照会のEMが配合されたカートリッジフィルターについてですが、当該商品や部品を製作している関係機関はございません。

フィルター材で使用するカーボン等をEM処理することは可能かと思いますが、製品開発については、専門分野外ですので、もし御社がご希望されるならば共同開発という形で技術的なところを協議できればと考えます。

一方で、弊社のアメリカ現地法人（EMROUSA）もございますので、御社取引先様から直接コンタクトいただいても構いません。しかしながら、EMROUSAにとりましても、未着手の分野ですので、同様に検討する事になりますことをご理解いただければと存じます。

EMROUSA
[Quoted text hidden]

[Quoted text hidden]

Exhibit R

The Spanish Group LLC
1 Park Plaza, Suite 600
Irvine, CA 92614
United States of America
https://www.thespanishgroup.org

Certified Translation

Furnished on the **5th** day of **May, 2022**

I, **Hyunji Lee** ( ), hereby certify that I translated the attached document from Korean into English or English into Korean and that this translation is an accurate and faithful translation of the original document. Furthermore, I certify that I am proficient in translating both Korean and English and that I hold the capacity to render and certify the validity of such a translation. This document has not been translated for a family member, friend, or business associate.

I, Salvador G. Ordorica, as a Quality Assurance Agent of The Spanish Group LLC, hereby attest that the aforementioned translator is a proficient Korean-English translator. Accordingly, as an authorized representative of The Spanish Group, I certify that this document has been proofread and that the attached document is a faithful and authentic translation of its original.

Respectfully,

CERTIFIED The Spanish Group TRANSLATION

Salvador G. Ordorica
The Spanish Group LLC
(ATA #267262)

The Spanish Group LLC verifies the credentials and/or competency of its translators and the present certification, as well as any attached pages, serves to affirm that the document(s) enumerated above has have been translated as accurately as possible from its/their original(s). The Spanish Group LLC does not attest that the original document(s) is/are accurate, legitimate, or has/have not been falsified. Through having accepted the terms and conditions set forth in order to contract The Spanish Group LLC's services, and/or through presenting this certificate, the client releases, waives, discharges and relinquishes the right to present any legal claim(s) against The Spanish Group LLC. Consequently, The Spanish Group LLC cannot be held liable for any loss or damage suffered by the Client(s) or any other party either during, after, or arising from the use of The Spanish Group LLC's services.

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of **ORANGE**.

On , **May 5th, 2022** before me, **NICOLE A. RENNA NOTARY PUBLIC.**
(insert name and title of the officer)

personally appeared **Salvador G. Ordorica**,
who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

NICOLE A. RENNA
COMMISSION # 2302767
Notary Public - California
ORANGE COUNTY
My Comm Expires Aug. 24, 2023

WITNESS my hand and official seal.

Signature _____ **(Notary Public Seal)**

Gmail

John Chung <kcm.john05@gmail.com>

Regarding EM Filter
1 message

sammy Ahn <sammyitsumi@yahoo.com>
Reply-To: sammy Ahn <sammyitsumi@yahoo.com>
To: John Chung <kcm.john4@gmail.com>

Thu, Mar 23, 2017 at 6:11 PM

President Jung,

After inquiring by phone first to a total of four Japanese associations and exhibitions, the sponsor and related companies, we came to the conclusion that EM Filter itself does not exist in any other industry as well as dry cleaning machines. As a result of requesting a formal answer with, I first received an email from a company called ZENDORA and sent it to me, so I attach it and send it. I was told to keep looking and urging, so I think some kind of answer will come.

You will need a translation, and we will translate it and send it to you as soon as possible.

Good luck

Sam Ahn, *President.*

Itsumi USA Inc.,
1243 W. 134th St.
Gadena, CA 90247
310-532-0534

-----Original Message-----
From: ゼンドラ株式会社 関 誠
Sent: Thursday, March 23, 2017 1:30 PM
To: syh@itsumi.co.jp
Subject: お問い合わせありがとうございます。

イツミ製作所

お世話になっております。
ゼンドラの関です。

ご質問いただきました　につきまして

弊社内の記者に確認いたしましたが
EM成分が配合されているドライ機のカートリッジフィルターは
聞いたことがないようです。

お役にたてず申し訳ございません。
以上、ご報告でございます。

今後とも何卒よろしくお願いいたします。

ゼンドラ 関

--
****
つなぐ手でつなぐ未来
クリーニング＆テキスタイルレンタル業界の専門新聞出版社
****

ゼンドラ株式会社
代表取締役 関 誠

〒113-0021
東京都文京区本駒込6 - 5 - 3 ビューネ本駒込ビル7階
電話 03-6821-6611 FAX 03-5976-1330
E-Mail: makoto@zendora.co.jp URL: http://www.zendora.co.jp

****

★１００万人の女性が選ぶモノとサービス
１００万部発行のフリーペーパー
サンプリングでのリアルプロモーション！
WOMAN'S GATE（ウーマンズゲート）
http://www.womansgate.net

★キュレーションマガジン「antenna*」スマートニュース「SmartNews」に常時配信中
日本初！お洗濯・クリーニングのメディア
まとうよそおううつくしく 私らしくのお手伝いサイト
『イドカバネット』
http://www.idokaba.net

Gmail John Chung <kcm.john05@gmail.com>

EM Filter 에 관한건
1 message

sammy Ahn <sammyitsumi@yahoo.com> Thu, Mar 23, 2017 at 6:11 PM
Reply-To: sammy Ahn <sammyitsumi@yahoo.com>
To: John Chung <kcm.john4@gmail.com>

정 사장님,

일본의 협회및 전시회 주체측 그리고 관련회사 등 총 네군데에 전화로 먼저 문의 하였는바
드라이 크리닝 기계는 물론이고 여타 어느 산업에도 EM Filter 자체가 존재 하지 안는다는 결론을 엇었고,
확실하게 하기 위하여 어제 이메일로 정식 답변을 요청한 결과 우선 ZENDORA라는 회사에서 메일을 받아 제게 보냈기에
어테치 하여 보냅니다. 계속 알아보고 재촉하라 했으니 곳 무슨 답변이 올 것으로 생각됩니다.
번역 필요하실 것 입니다, 조속히 번역하여 보내겠습니다

수고하십시요

Sam Ahn, *President.*

Itsumi USA Inc.,
1243 W. 134th St.
Gadena, CA 90247
310-532-0534

-----Original Message-----
From: ゼンドラ株式会社 関 誠
Sent: Thursday, March 23, 2017 1:30 PM
To: syh@itsumi.co.jp
Subject: お問い合わせありがとうございます。

イツミ製作所

お世話になっております。
ゼンドラの関です。

ご質問いただきました件につきまして

弊社内の記者に確認いたしましたが
EM成分が配合されているドライ機のカートリッジフィルターは
聞いたことがないようです。

お役にたてず申し訳ございません。
以上、ご報告でございます。

今後とも何卒よろしくお願いいたします。

ゼンドラ 関

--
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つなぐ手でつなぐ未来
クリーニング＆テキスタイルレンタル業界の専門新聞出版社
****

ゼンドラ株式会社
代表取締役 関 誠

〒113-0021
東京都文京区本駒込6 - 5 - 3 ビューネ本駒込ビル 7 階
電話 03-6821-6611 FAX 03-5976-1330
E-Mail: makoto@zendora.co.jp URL: http://www.zendora.co.jp

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『イドカバネット』
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The Spanish Group LLC
1 Park Plaza, Suite 600
Irvine, CA 92614
United States of America
https://www.thespanishgroup.org

Certified Translation

Furnished on the **3rd** day of **May, 2022**

I, **Ha Vu** ( ), hereby certify that I translated the attached documents from Japanese into English or English into Japanese and that these translations are accurate and faithful translations of the original documents. Furthermore, I certify that I am proficient in translating both Japanese and English and that I hold the capacity to render and certify the validity of such translations. These documents have not been translated for a family member, friend, or business associate.

I, Salvador G. Ordorica, as a Quality Assurance Agent of The Spanish Group LLC, hereby attest that the aforementioned translator is a proficient Japanese-English translator. Accordingly, as an authorized representative of The Spanish Group, I certify that these documents have been proofread and that the attached documents are faithful and authentic translations of their originals.

Respectfully,

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Salvador G. Ordorica
The Spanish Group LLC
(ATA #267262)

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Jun Chung <kcm.john05@gmail.com

Thu, Mar. 23, 2017 at 6:11 PM

Fw：イツミ製作所です。(Itsumi Manufacturing Co.)
sammy Ahn <sammyitsumi@yahoo.com>
Reply-To：sammy Ahn <sammyitsumi@yahoo.com>
To：Chung <kcm.john4@gmail.com>

Original Message
From: Zendra Corporation open report
Sent Thursday, March 23 2017:30 PM
To: syhgtsumi.co.jp
Subject: Thank you for your inquiry.

Itsumi Manufacturing Co.

Thank you very much for your help.

My name is Seki from Zendra.

We have checked with our in-house reporters regarding your question, but they have never heard of a dry right cartridge filter that contains EM ingredients.

We apologize for not being able to help you. That is all I have to report.

Thank you for your continued support. Zendra Seki

****

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Newspaper publisher specializing in the cleaning & textile rental industry
****

Zendra Corporation
Representative Director Makoto Seki
Pune Honkomagome Bldg. 7F, 6-5-3 Honkomagome, Bunkyo-ku, Tokyo 113-0021, Japan
Phone: 03-6821-6611 FAX: 03-5976-1330
Email: makoto@zendora.co.jp URL: http://www.zendora.co.jp
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Idokabanet
http://www.idokaba.net

Gmail John Chung <kcm.john05@gmail.com>

EM Filter 에 관한건
1 message

sammy Ahn <sammyitsumi@yahoo.com> Thu, Mar 23, 2017 at 6:11 PM
Reply-To: sammy Ahn <sammyitsumi@yahoo.com>
To: John Chung <kcm.john4@gmail.com>

정 사장님,

일본의 협회및 전시회 주체측 그리고 관련회사 등 총 네군데에 전화로 먼저 문의 하였는바
드라이 크리닝 기계는 물론이고 여타 어느 산업에도 EM Filter 자체가 존재 하지 안는다는 결론을 엇었고,
확실하게 하기 위하여 어제 이메일로 정식 답변을 요청한 결과 우선 ZENDORA라는 회사에서 메일을 받아 제게 보냈기에
어테치 하여 보냅니다. 계속 알아보고 재촉하라 했으니 곳 무슨 답변이 올 것으로 생각됩니다.
번역 필요하실 것 입니다, 조속히 번역하여 보내겠습니다

수고하십시요

Sam Ahn, *President*

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ご質問いただきました件につきまして

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EM成分が配合されているドライ機のカートリッジフィルターは
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今後とも何卒よろしくお願いいたします。

ゼンドラ 関

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ゼンドラ株式会社
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電話 03-6821-6611 FAX 03-5976-1330
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Exhibit S

The Spanish Group LLC
1 Park Plaza, Suite 600
Irvine, CA 92614
United States of America
https://www.thespanishgroup.org

Certified Translation

Furnished on the **4th** day of **May, 2022**

I, **Hyunji Lee** ( ), hereby certify that I translated the attached documents from Korean into English or English into Korean and that these translations are accurate and faithful translations of the original documents. Furthermore, I certify that I am proficient in translating both Korean and English and that I hold the capacity to render and certify the validity of such translations. These documents have not been translated for a family member, friend, or business associate.

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Respectfully,

CERTIFIED The Spanish Group TRANSLATION

Salvador G. Ordorica
The Spanish Group LLC
(ATA #267262)

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ACKNOWLEDGMENT

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State of Califomia
County of ORANGE.

On , May 4th, 2022 before me, NICOLE A. RENNA NOTARY PUBLIC.
(insert name and title of the officer)

personally appeared Salvador G. Ordorica,
who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NICOLE A. RENNA
COMMISSION # 2302767
Notary Public - California
ORANGE COUNTY
My Comm. Expires Aug. 24, 2023

Signature _____ (Notary Public Seal)

Kleaners

Due to recession, proportion of Korean cleaners is understood as falling below 50% and the speed is increasing.

The dry-cleaning machine distribution in Europe and the US for the cleaning equipment industry had been led by German companies, but Union, an Italy company benchmarked German companies and established a company in 1976, which has distributed machines to businesses where Italians and Korean immigrants are mainly involved so far and it is well known that it has become the largest selling company in the US.

NYM is a Korean immigrant, established a company in 1987 when Koreans started to take over laundry business in earnest following Italian immigrants, and imported and sold Victory machine in an OEM method to Italy Union company in 1995, scoring the highest sales record within the US, by selling 600 units within 5 years in one local area.

They introduced EM technology of Japanese cleaning businesses in 2005 and launched "No Cooking Machine NATURA" which is a hydrocarbon solvent machine commissioned to Union company of Italy in the US, which opened the area of the No Cooking, this also received the world best sales award from Union company breaking existing cooking concept. This is known as to have proved the no cooking system machine.

In 2011, by compensating NATURA's shortcomings and lowering manufacturing cost dramatically, improving the performance even more by using high end parts and lifetime lasting stainless steel parts in total machines, not in just parts, and by allowing use without water and steam by introducing heat pump technology, "UNISEC", which anybody can use easily due to its simple and convenient management, maintenance, and repair, which significantly reduces maintenance and utility costs over other machines has appeared.

In 2012, not only in US domestically, but also globally, microbial mutant technology was recognized, and the fact of receiving a patent (US 8,110,009 B2) from the US Patent Office can be recognition of the EM technology legally once again. In relation to this, No Cooking System is proved more scientifically.

Demand from the market on introduction of low cost equipment with excellent performance and the efforts to conserve earth environment is the trend, the fact that cumulative sales approaching 500 units can be confidently said to represent future market demand.

New York machinery is the largest Korean equipment distribution company, it could be confirmed that it was led by the experience and the spirit of constant inquiry of the president.

Always having customers in mind, and 'becoming the best in one area' is the president Lee Nam Goo's management philosophy.

불경기 영향으로 한인 세탁인의 비율이 50%이하로 떨어지고 있는것으로 파악되고 있고 그 속도가 증가 일로에 있다.

세탁장비업은 독일회사들이 유럽과 미국내 드라이클리닝 머신 보급을 주도해 오던 중 이태리 회사인 유니온사가 독일 회사를 벤치마킹하여 1976년 회사를 설립하면서 당시까지 이태리와 한인이민자들이 주로 종사하고 있는 세탁소에 머신을 공급하여 미국내 최대 판매회사가 된것은 주지의 사실이다.

NYM은 한인 이민자로서 이태리 이민자에 이어 한인들이 본격적으로 세탁업을 인수하기 시작한 1987년에 회사를 설립하여 1995년 이태리 유니온사에 OEM 방식으로 Victory 머신을 수입판매 하여 불과 5년안에 600대 넘는 판매로 한 로칼 지역에서 미국내 최대판매기록을 세웠다.

2005년 일본세탁업의 EM기술을 도입하여 이태리 유니온사에 제작 의뢰한 하이드로 카본 솔벤트 기계인 No Cooking 머신 NATURA를 미국내에 출시, No Cooking 시대를 열었으며 이역시 기존에 쿠키개념을 깨고2008 년도에 유니온사로부터 세계최고 판매상을 받았다, 이는 노쿠킹시스템기계가 입증 됐다는 의미로 전해 진다.

2011년 NATURA의 단점을 보완하고 원가를 파격적으로 낮추고 고급부품과 평생가는 스텐레스 스틸 사용을 부분적이 아니라 기계전체를 사용하여 성능을 더욱 향상 시켰으며 히트펌프 기술도입으로 물과 스팀없이 사용이 가능하게 했으며 관리와 사용, 유지, 보수가 편리하고 간단하여 누구나 쉽게 사용할 수 있고 타기계에 비해 월등히 유틸리티와 유지비용이 절감되는 "유니섹 UNISEC"이 등장하게 되었다.

2012년도에는 미국내 뿐만 아니라 세계적으로 최초 미생물이 솔벤트에서 살 수 있게 만든 미생물 변종기술을 인정받아 특허 (US 8,110,009 B2)을 미 특허청으로부터 받았다는 것은 또한번 EM 기술을 법적으로 인정 받은거라 할 수 있다. 이에 연관돼 노쿠킹시스템은 보다 과학적으로 증명 돼었다고 볼 수 있다.

뛰어난 성능을 갖춘 저렴한 장비구입에 대한 시장의 요구와 지구환경 보전을 위한 노력은 시대의 흐름이며 2017년 누적판매 500대 돌파를 목전에 두고 있는것은 미래 시장 수요를 대변하는 것이라고 자신있게 말할 수 있다.

뉴욕 머시너리는 한인 최대 장비업자인 만큼 대표의 경험과 끊임없는 탐구 정신으로 이끌어온 것을 확인 할 수가 있었다.

고객을 생각하고 무엇보다 '한 분야에서 최고가 된다'라는 것이 이남구 대표의 경영 철학이다.

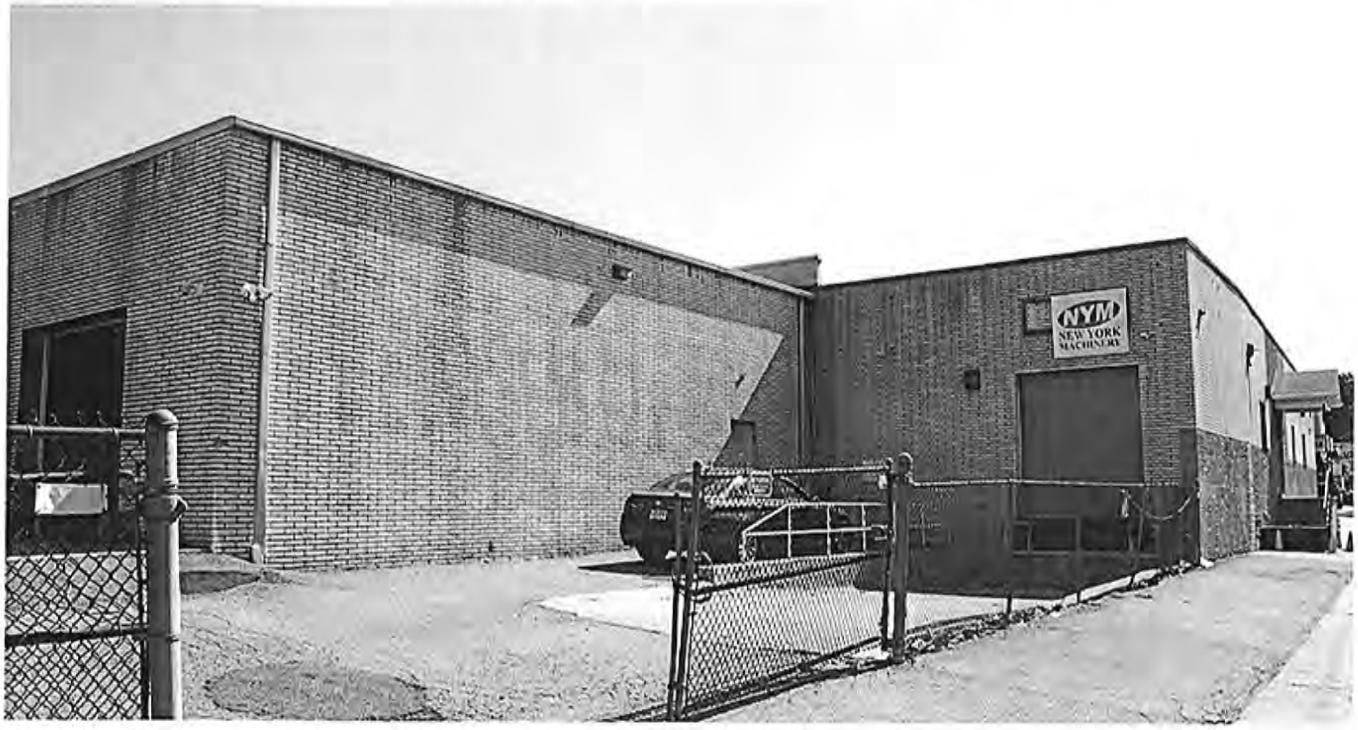

Exhibit T

The Spanish Group LLC
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Irvine, CA 92614
United States of America
https://www.thespanishgroup.org

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Furnished on the **4th** day of **May, 2022**

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Respectfully,

CERTIFIED The Spanish Group TRANSLATION

Salvador G. Ordorica
The Spanish Group LLC
(ATA #267262)

ACKNOWLEDGMENT

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State of California
County of ORANGE.

On , May 4th, 2022 before me, NICOLE A. RENNA NOTARY PUBLIC.
(insert name and title of the officer)

personally appeared Salvador G. Ordorica,
who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

NICOLE A. RENNA
COMMISSION # 2302767
Notary Public - California
ORANGE COUNTY
My Comm. Expires Aug. 24, 2023

Signature _____ (Notary Public Seal)

Gmail John Chung <kcm.john05@gmail.com>

About the next issue

Sammy Ahn <sammyitsumi@yahoo.com>
Reply-To: Sammy Ahn <sammyitsumi@yahoo.com>
To:John Chung <kcm.john4@gmail.com>

Dear president Jeong, Mon. May 15, 2017 at 12:52 AM

I apologize for my short thoughts and words, and on my second thought today, I am ashamed because I think I was being mean.
I did not realize you did not do anything shameful to anyone including consumers in this area.
Last time, when Mr. Lee Nam Goo came in with the dealers and with them, questioned me, it was an unbearable insult to me...
My short thought of the cause being in president Jeong lead me to take it out on the wrong side, I apologize again.
I think Mr. Lee Nam Gu will contact me again on Monday. I asked for it.
I need to discuss about his rude behavior with him to get rid of my anger.
Now, nothing matters to me. Just clear it out. And just know that it was not because I was scared of him...

Sam Ahn, President.

Itsumi USA Inc.,
1243 W.134th St.
Gadena, CA 90247
310-532-0534

Gmail John Chung <kcm.john05@gmail.com>

다음호 건

sammy Ahn <sammyitsumi@yahoo.com> Mon, May 15, 2017 at 12:52 AM
Reply-To: sammy Ahn <sammyitsumi@yahoo.com>
To: John Chung <kcm.john4@gmail.com>

정 사장님,

제 짧은 생각과 언사에 사과에 말씀을 드립니다.
오늘 다시 생각 해보니 제가 비열한 생각이 들어 부끄럽습니다.
이계통 소비자를 비롯 어느 누구에게도 부끄러운 짓을 한 것이 아니라는걸 미처 깨닳치 못했습니다.
지난번 이 남구씨가 딜러들 까지 더리고 들이닦처 그들과 함께 제게 추궁한 것이 저에겐 참지못할 모욕 이였기에....
그 원인이 정 사장님에게 있다는 짧은 생각에, 화풀이를 엉뚱한 곳에 한 것을 다시한번 사과 드립니다.
월요일날 이 남구씨 에게서 다시 연락이 올 것 같습니다. 제가 해달라 했습니다.
저도 그 사람에 예의 없는 행동을 따져야 분이 풀리겠습니다
이제 저는 아무래도 상관 없습니다. 밝히십시요. 그리고 그 사람이 겁이 나서가 아니였다는 것만 알아주시고.....

Sam Ahn, *President.*

Itsumi USA Inc.,
1243 W. 134th St.
Gadena, CA 90247
310-532-0534

Exhibit U

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(ATA #267262)

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ACKNOWLEDGMENT

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State of California
County of ORANGE.

On , May 4th, 2022 before me, NICOLE A. RENNA NOTARY PUBLIC.
(insert name and title of the officer)

personally appeared Salvador G. Ordorica,
who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

NICOLE A. RENNA
COMMISSION # 2302767
Notary Public - California
ORANGE COUNTY
My Comm. Expires Aug. 24, 2023

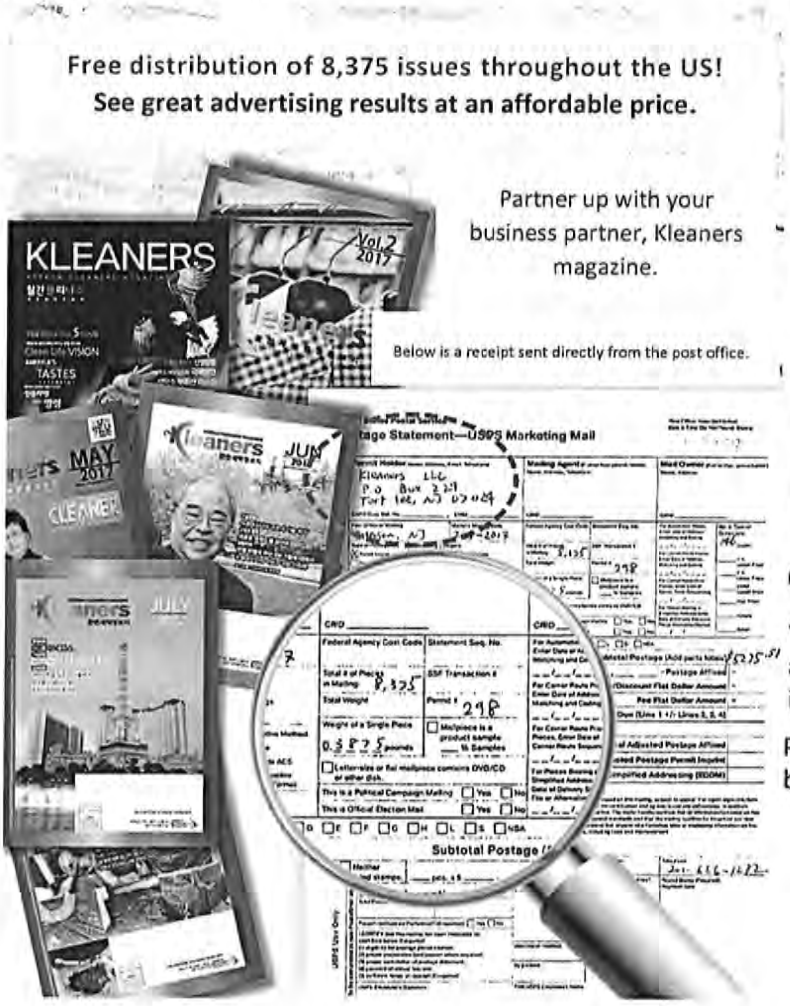
WITNESS my hand and official seal.

Signature _____ (Notary Public Seal)

N Machinery, Post Office Receipt Fraud, this time

they presented fake post office receipts saying it is a circulation of K-such magazine issued by the company

N Machinery's lie, where does it end? N machinery, who has ripped off laundry men with soap that does not contain EM bacteria and EM filters which does not exist in Japan, at this time, they put out a fraudulent advertisement with puffed up circulation of K-such magazine. N machinery, in their advertisement released in page 53, August issue of K-such magazine, under the headline of "Free distribution of 8,375 copies throughout the US" posted a picture of "the receipt sent directly from the post office". The problem is that the receipt in the picture is not the receipt issued by the post office.



There is no handwritten post office receipt

The document posted in the picture as the receipt is not the receipt, it is Postage Statement—USPS Marketing Mail(PS3602R), it is as the name says, a report form that is submitted to the post office when an advertisement leaflet is sent. When post office take in this report form, after filled in contents and the actual mail volume are compared and confirmed, (it is common to report less to save money). After the applicable fee is received, a formal receipt is issued. In this case, of course it is printed on a computer where there cannot be any handwriting.

In other words, the disclosed picture that N machinery said as "this is the receipt sent directly by the post office" is a report form the sender prepares and submits, not the receipt issued by the post office.

Contents of the fake receipt are also a fake

What is even more ridiculous here is that it is written as "Kleaners LLC, P.O. Box 229, Fort Lee, NJ 07024 in the sender's column.

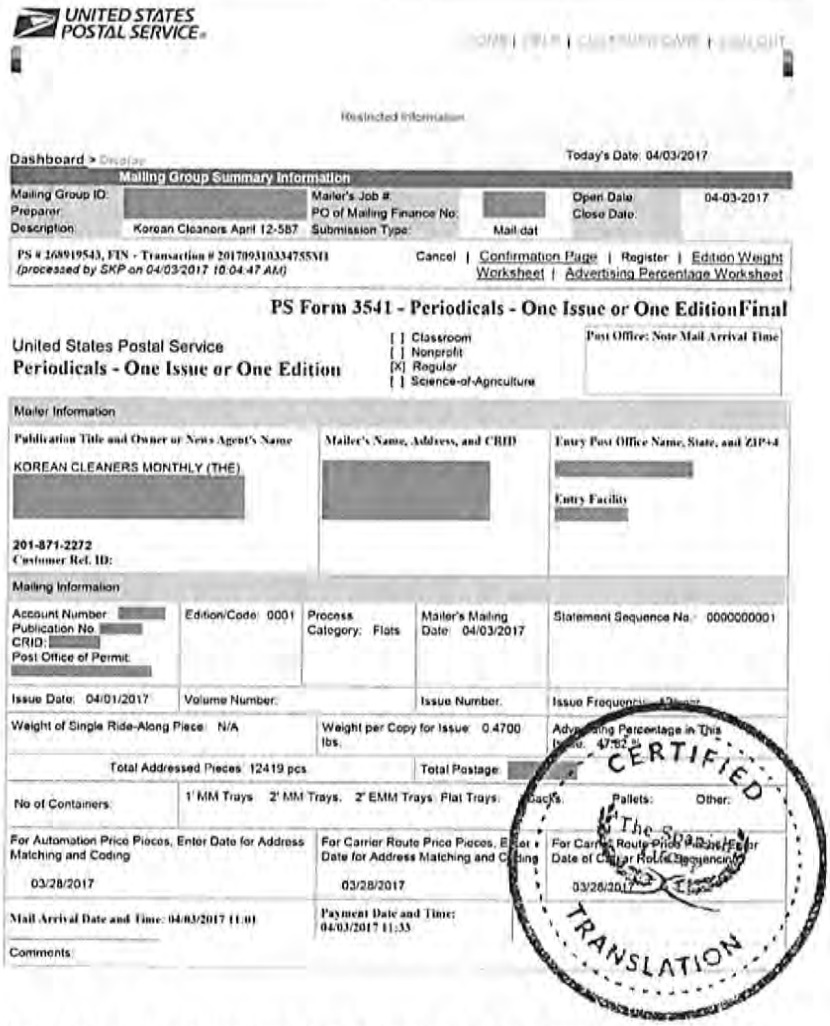
Post office does not allow P.O. Box as the business address when any reports are filled in.

The actual address should be written, when P.O. Box is written as the address, the receipt will be denied.

One direct mail company official was taken back and said: "these days, even small stores give printed receipts, it is not possible at all to receive handwritten receipts from the post office", "furthermore, it is simply a ridiculous fraud to put forward a proof of circulation by filling in a few words roughly in the reporting form" He scoffed that it is the at the height of mere ignorance that will be discovered by even a person who has a little knowledge of post office work.

Authentic Post Office Receipt

These days, the post office creates periodical sender accounts online and process receipts in batches. Please understand that the contents of the receipt on right are blurred out for non-disclosure.



UNITED STATES POSTAL SERVICE

Dashboard > Today's Date: 04/03/2017

Mailing Group Summary Information

Mailing Group ID: [redacted] Mailer's Job #: [redacted] Open Date: 04-03-2017
Preparer: [redacted] PO of Mailing Finance No: [redacted] Close Date:
Description: Korean Cleaners April 12-587 Submission Type: Mail.dat

PS # 168919543, FIN - Transaction # 201709310334755M1 (processed by SKP on 04/03/2017 10:04:47 AM)
Cancel | Confirmation Page | Register | Edition Weight Worksheet | Advertising Percentage Worksheet

PS Form 3541 - Periodicals - One Issue or One Edition Final

United States Postal Service
Periodicals - One Issue or One Edition

[ ] Classroom
[ ] Nonprofit
[X] Regular
[ ] Science-of-Agriculture

Post Office: Note Mail Arrival Time

Mailer Information

Publication Title and Owner or News Agent's Name: KOREAN CLEANERS MONTHLY (THE) [redacted]
201-871-2272
Customer Ref. ID:

Mailer's Name, Address, and CRID: [redacted]

Entry Post Office Name, State, and ZIP+4: [redacted]
Entry Facility: [redacted]

Mailing Information

Account Number: [redacted] Edition/Code: 0001 Process Category: Flats Mailer's Mailing Date: 04/03/2017 Statement Sequence No.: 0000000001
Publication No: [redacted]
CRID: [redacted]
Post Office of Permit: [redacted]

Issue Date: 04/01/2017 Volume Number: Issue Number: Issue Frequency:
Weight of Single Ride-Along Piece: N/A Weight per Copy for Issue: 0.4700 lbs. Advertising Percentage in This Issue: 47.87 %
Total Addressed Pieces: 12419 pcs Total Postage: [redacted]
No of Containers: 1' MM Trays: 2' MM Trays: 2' EMM Trays: Flat Trays: Sacks: Pallets: Other:
For Automation Price Pieces, Enter Date for Address Matching and Coding: 03/28/2017
For Carrier Route Price Pieces, Enter Date for Address Matching and Coding: 03/28/2017
For Carrier Route Price Pieces, Enter Date of Carrier Route Sequencing: 03/28/2017
Mail Arrival Date and Time: 04/03/2017 11:01
Payment Date and Time: 04/03/2017 11:33
Comments:

CERTIFIED TRANSLATION

Endless lies of N Machinery

▲ No EM bacteria was detected as the result of microorganism culture tests from the US accredited laboratory. In addition, packaging is different between the US sold products and the Japan sold products.

▲ EM filter is a plain cartridge filter that does not even exist in Japanese market.

But they call it is as EM and charging for more than twice as much.
Furthermore, an absurd claim of the filter can be used for more than one year is made.

▲ Yu*Sec machine does not have "EM-optimized system, it is just a normal filter machine.

▲ Yu*Sec machine is advertised as "no-steam, no-water", but both steam and water are connected when it is installed.

▲ Since there had been frequent problems on the control board of the Yu*Sec machine, N machinery received free parts for recalls from the China factory in the beginning of this year.

A final statement was processed by monthly launderer's online account form, but they keep quiet to not refund money to around 100 businesses who changed the board after paying average 2,000 dollars as a repair fee.

▲ And to puff out the circulation of K-such magazine, they swindled a report form with a few handwritten letters as the post office receipt.

One business official said "president Lee - MO of N machinery seems to be really insensitive to lies" and expressed his pity saying "I hope he would confess his conscience even now and start anew".

"A lie cannot live"
- Rev. Martin Luther King -

N 머쉬너리 이번엔 우체국 영수증 사기

자사 발행 K모지 발행부수라며 가짜 우체국 영수증 제시

N머쉬너리의 거짓말은 과연 끝이 어디인가? EM 균이 없는 EM 비누와 일본에 존재하지 않는 EM 필터로 세탁인들에게 바가지를 씌워 온 N 머쉬너리가 이번엔 자사가 발행하는 K모 잡지의 발행 부수를 뻥튀기한 사기 광고를 내놓았다. N 머쉬너리는 K모 잡지 8월호 53쪽에 게재한 자체 광고에서 "미주 전지역 8,375부 무료 배포!"란 헤드라인 아래 "우체국에서 직접 발송한 영수증" 사진을 게재했다. 문제는 사진에 나온 영수증이 우체국에서 발행한 영수증이 아니란 사실에 있다.

손으로 쓴 우체국 영수증은 없다

사진에 영수증이라고 게재한 것은 영수증이 아니라 Postage Statement—USPS Marketing Mail(PS3602R)이다. 이는 이름이 말해주듯 광고 전단 발송시 우체국에 제출하는 보고 양식이다.

우체국은 이 보고양식을 접수하면 기재 내용과 실제 우편물 양을 비교 확인한 후 (우편 요금을 절약하기 위해 더 적게 보고하는 경우가 흔하다), 해당 우편 요금을 받고 나서, 정식 영수증을 발행한다. 이는 물론 컴퓨터로 발행되므로 손 글씨가 있을 수 없다.

다시 말해 N 머쉬너리가 "우체국에서 직접 발송한 영수증입니다"라며 게재한 사진은 발송자가 작성해 제출하는 보고 양식이지, 우체국이 발행하는 영수증이 아니다.

가짜 영수증 내용도 가짜

여기서 더욱 어처구니없는 것은 사진의 보고서는 절대로 우체국에 제출된 보고서일 수 없다는 사실이다. 광고 사진을 보면 발송자 난에 "Kleaners LLC, P.O. Box 229, Fort Lee, NJ 07024"라고 적혀 있다.

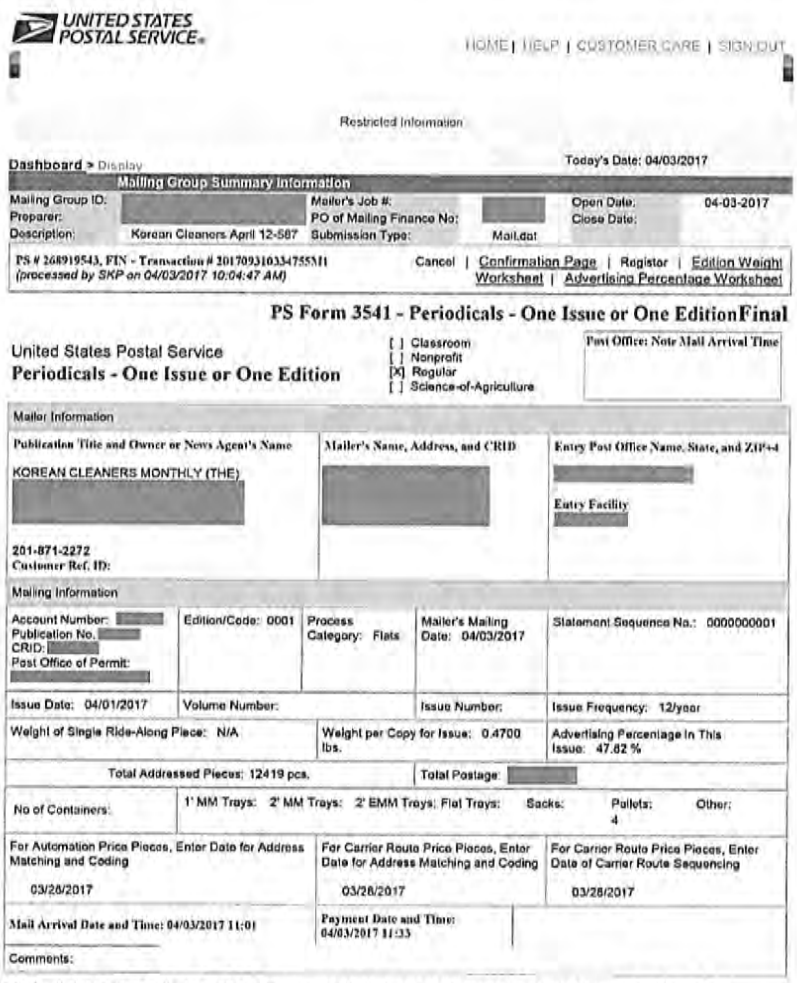
우체국은 모든 보고서 작성 시 사업자 주

소를 우체국 사서함(P.O. Box)으로 적는 것을 허용하지 않는다. 반드시 실제 주소를 기재해야만 한다. P.O. Box를 적을 경우 보고서 접수가 거부된다.

한 디렉트 메일 회사 관계자는 "요즘엔 구멍가게에서도 인쇄된 영수증을 주는데 우체국에서 손으로 쓴 영수증을 준다는 건 있을 수 없는 일"이라며 "더군다나 보고 양식에 대충 몇 글자 적어 발행부수 증명인 양 내세우는 것은 한 마디로 터무니 없는 사기"라고 어이없어 했다. 그는 "우체국 업무를 조금만 아는 사람이 봐도 들통날 단순무식의 극치"라고 비웃었다.

진짜 우체국 영수증

요즘 우체국은 온라인 상에 정기 간행물 발송자 구좌를 만들어 보고와 영수증을 일괄처리하고 있다. 옆의 영수증 내용 중 비공개할 부분은 모자이크 처리를 했으니 이해를 바란다.



UNITED STATES POSTAL SERVICE

HOME | HELP | CUSTOMER CARE | SIGN OUT

Restricted Information

Dashboard > Display

Today's Date: 04/03/2017

Mailing Group Summary Information

Mailing Group ID: [redacted] Mailer's Job #: [redacted] Open Date: 04-03-2017
Preparer: PO of Mailing Finance No: Close Date:
Description: Korean Cleaners April 12-587 Submission Type: Mail.dat

PS # 268919543, FIN - Transaction # 201709310334755M1 (processed by SKP on 04/03/2017 10:04:47 AM)

Cancel | Confirmation Page | Registor | Edition Weight Worksheet | Advertising Percentage Worksheet

PS Form 3541 - Periodicals - One Issue or One EditionFinal

United States Postal Service
Periodicals - One Issue or One Edition

[ ] Classroom
[ ] Nonprofit
[X] Regular
[ ] Science-of-Agriculture

Post Office: Note Mail Arrival Time

Mailer Information

Publication Title and Owner or News Agent's Name: KOREAN CLEANERS MONTHLY (THE) [redacted]
201-871-2272
Customer Ref. ID:

Mailer's Name, Address, and CRID: [redacted]

Entry Post Office Name, State, and ZIP+4: [redacted]
Entry Facility:

Mailing Information

Account Number: [redacted] Edition/Code: 0001 Process Category: Flats Mailer's Mailing Date: 04/03/2017 Statement Sequence No.: 0000000001
Publication No. [redacted]
CRID: [redacted]
Post Office of Permit: [redacted]

Issue Date: 04/01/2017 Volume Number: Issue Number: Issue Frequency: 12/year

Weight of Single Ride-Along Piece: N/A Weight per Copy for Issue: 0.4700 lbs. Advertising Percentage In This Issue: 47.62 %

Total Addressed Pieces: 12419 pcs. Total Postage: [redacted]

No of Containers: 1' MM Trays: 2' MM Trays: 2' EMM Trays: Flat Trays: Sacks: Pallets: 4 Other:

For Automation Price Pieces, Enter Date for Address Matching and Coding: 03/28/2017
For Carrier Route Price Pieces, Enter Date for Address Matching and Coding: 03/28/2017
For Carrier Route Price Pieces, Enter Date of Carrier Route Sequencing: 03/28/2017

Mail Arrival Date and Time: 04/03/2017 11:01 Payment Date and Time: 04/03/2017 11:33

Comments:

월간 세탁인의 우체국 온라인 구좌로 처리된 최종 우편요금 스테이트먼트의 모습.

끝날 줄 모르는 N 머쉬너리의 거짓말

▲ EM 비누는 미국 공인 연구소의 미생물 배양 실험 결과 EM 균이 전혀 검출되지 않았다. 또한 미국 판매 제품과 일본 판매 제품이 포장부터 다르다.

▲ EM 필터는 일본 시장에 존재조차 하지 않는 평범한 카트리지 필터이다. 그러데 EM이라며 두 배 이상 바가지를 씌우고 있다. 더군다나 필터를 1년 이상 쓸 수 있다고 황당무계한 주장을 하고 있다.

▲ 유*섹 머쉰에 "EM에 최적화"된 구조는 없다. 평범한 필터 머쉰일 뿐이다.

▲ 유*섹 머쉰은 "노-스팀, 노-워터"라고 광고하지만 설치할 때 모두 스팀과 워터를 연결한다.

▲ N 머쉬너리는 유*섹 머쉰의 컨트롤 보드 문제가 빈발해 금년 초 중국 공장으로부터 리콜용 부품을 무료로 받았다. 하지만 지금까지 평균 2천 달러란 수리비를 내고 보드를 교체한 1백여 업소에 환불을 하지 않기 위해 이를 쉬쉬 하고 있다.

▲ 그리고 이제 자체 발행하는 K모 지의 발행 부수를 뻥튀기하기 위해 손으로 몇 자 적은 보고 양식을 우체국 영수증이라고 사기치고 있다.

한 업계 관계자는 "N 머쉬너리 이 모 사장이 정말 거짓말 불감증에 걸린 모양"이라며 "지금이라도 양심 고백을 하고 새 출발 했으면 좋겠다"고 안타까워했다. ■

"거짓말은 결코 살아남을 수 없습니다"

A lie cannot live

- 마틴 루터 킹 쥬니어 목사 -